HITACHI

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SERVICE MANUAL

PA **No. 0217**

42HDX99/DW2-U
42HDT79/DW2-U
42HDS69/DW2-U

NTSC
ATSC

DW2-U
Chassis

R/C: CLU-4352UG2 42HDS69
R/C: CLU-3861WL 42HDT79/42HDX99

SERVICE MANUAL REVISION HISTORY INFORMATION

DATE	REVISON #	REASON
Apr , 28	SM00001	FIRST ISSUE OF MANUAL
09.27.06	CH 1	Part Numbers Changed
02.06.07	CH 2	Change 1 updated part description information
02.22.07	CH 3	Revised Service Menu sequence on pages 44 and 45 (FACT RESET >< MEMORY INIT)
04.19.07	CH 4	Updated part number information link
05.03.07	CH 5	Changed text, Increase > Decrease

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PLASMA DISPLAY PANEL

APRIL 2006 **HHEA-MANUFACTURING DIVISION**

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TO GO TO A CHAPTER, CLICK ON ITS HEADING BELOW

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CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Before servicing this chassis, it is important that the service technician read the “IMPORTANT SAFETY INSTRUCTIONS” in this service manual.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a ⚠ on the schematics and on the parts list in this Service Data and its supplements and bulletins. Before servicing the chassis, it is important that the service technician read and follow the “Important Safety Instructions” in this Service Manual.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PLASMA DISPLAY PANEL

APRIL 2006 **HHEA-MANUFACTURING DIVISION**

SAFETY PRECAUTIONS

NOTICE: Comply with all cautions and safety-related notes located on or inside the cover case and on the chassis or plasma module.

WARNING: Since the chassis of this receiver is connected to one side of the AC power supply during operation, whenever the receiver is plugged in service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

1. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a “HOT” chassis receiver.
2. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, non-metallic knobs, insulating cover-shields, and isolation resistors, capacitors, etc.
3. When service is required, observe the original lead dress.
4. Always use manufacturer’s replacement components. Critical components as indicated on the circuit diagram should not be replaced by another manufacturer’s. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of over heating.
5. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

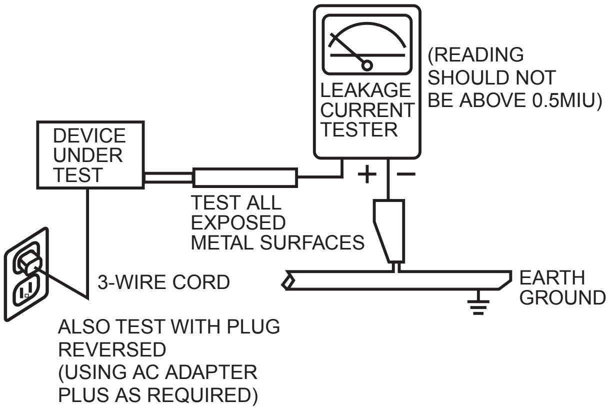
With the AC plug removed from the 120V AC 60Hz source, place a jumper across Line 1 and Line 2 of the three plug prongs, do not connect with the third prong, which is physical ground.

Using an insulation tester (DC500V), connect one of its leads to the AC plug jumper and touch with the other lead each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a resistor reading over 4MΩ. Any resistance value below this range indicates an abnormality which requires corrective action. An exposed metal part not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with the American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances. In the case of the PDP monitor set the AC switch first in the ON position and then in the OFF position, measure from across Line 1 and Line 2 of the three plug prongs, do not connect with the third prong, which is physical ground, to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 MIU. Reverse the instrument power cord plug in the outlet and repeat test.

AC LEAKAGE TEST



ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.

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PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receivers have special safety-related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified with a ⚠ mark in the schematics and parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI-recommended replacement component, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.

Product safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of HITACHI Service Manuals may be obtained at a nominal charge from HITACHI Sales Corporation.

1. Follow the general caution recommendations from “Safety precautions” section.

42HDS69/HDT79/HDX99 - Plasma Monitor Unit
55HDS69/HDT79/HDX99 - Plasma Monitor Unit

1. Follow the general caution recommendations from “Safety precautions” section.
2. Since the Panel module and front filter are made of glass, sufficient care shall be taken when handling the broken module and filter in order to avoid injury.
3. If necessary to replace Panel module, this work must be started after the panel module and the AC/DC Power supply becomes sufficiently cool.
4. Special care must be taken with the display area to avoid damaging its surface.
5. The Panel Module shall not be touched with bare hands to protect its surface from stains.
6. It is recommended to use clean soft gloves during the replacing work of the Panel module in order to protect, not only the display area of the panel module but also the serviceman.
7. The Chip Tube of the panel module (located upper left of the back of the panel module) and flexible cables connecting Panel glasses to the drive circuitry Printed Wiring Boards (P.W.B.) are very weak, so sufficient care must be taken to prevent breaking or cutting any of these. If the Chip Tube breaks the panel module will never work, replacement for a new plasma panel module will be needed.
8. AV Digital Block, power supply and PDP driving circuit P.W.B.’s are assembled on the rear side of the PDP module, take special care with this fragile circuitry; particularly, Flexible Printed Circuits bonded to surrounding edges of the glass panel. They are not strong enough to withstand harsh outer mechanical forces. Avoid touching the flexible printed circuits by not only your hands, but also tools, chassis, or any other object. Extreme bending of the connectors must be avoided too. In case the flexible printed circuits are damaged, the corresponding addressed portions of the screen will not be lit and exchange of a glass panel will be required.

PDP Module Handling

When there is need to replace a broken PDP module which is the displaying device from the Plasma monitor unit, consider the following:

1. When carrying the PDP module, two persons should stand at both shorter-edge sides of the glass-panel and transport it with their palms. Avoid touching the Flexible Printed Circuits or the chip tube on the corner of the glass-panel. Handle only by the surface of the glass panel. In case of some PDP modules, electrode repair is done by connecting between regular terminal with Cu tape and Cu wire. Please do not hook and/or damage this repair line. If it is damaged, the module will not function unless the glass-panel is exchanged with a new glass-panel.
2. When carrying PDP module, watch surrounding objects, such as tables, and also do not carry it alone since it may be dangerous and it will be damaged due to excessive stress to the module (glass-panel).
3. Please do not stand the module with the edge of the glass-panel on the table since this might result in damage to the glass-panel and/or flexible printed circuits due to excessive stress to the module (glass-panel).

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with solder. Also, when soldering make sure you are in a well ventilated area in order to avoid inhalation of any smoke or fumes released.

SAFETY NOTICE
USE ISOLATION TRANSFORMER
WHEN SERVICING

POWER SOURCE

This plasma television is designed to operate on 120 Volts 60Hz, AC house current. Insert the power cord into a 120 Volts 60Hz outlet.

NEVER CONNECT THE PLASMA TELEVISION TO OTHER THAN THE SPECIFIED VOLTAGE OR TO DIRECT CURRENT AND TO 50HZ. TO PREVENT ELECTRIC SHOCK, DO NOT USE THE PLASMA TELEVISION’S (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR THE OUTLETS UNLESS THE BLADES AND GROUND TERMINAL CAN BE FULLY UNSERTED TO PREVENT BLADE EXPOSURE.

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SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the "Important Safety Instructions" on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Guidelines

1. Always unplug the instrument AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.

   b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.

   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Do not spray chemicals on or near this instrument or any of its assemblies.

3. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).
   CAUTION: This is a flammable mixture. Unless specified otherwise in these service data, lubrication of contacts is not required.

4. Do not defeat any plug/socket of voltage interlocks with which instruments covered by this service data might be equipped.

5. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat-sinks are correctly installed.

6. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

7. Use with this instrument only the test fixtures specified in this service data.
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or desolder ES devices.

4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES device.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

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General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.

2. Use an appropriate lead free solder (see page 8). Lead solder can be used, but there is a possibility of failure due to insufficient strength of the solder.

3. Keep the soldering iron tip clean and well-tinned.

4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.

5. Use the following desoldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

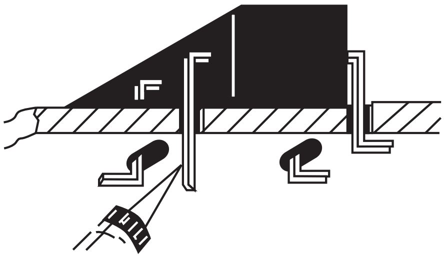
   b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.

6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

   b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.

   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.

   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron to Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.

2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.

2. Carefully bend each IC lead against the circuit foil pad and solder it.

3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to areas.)

"Small-signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.

2. Bend into a "U" shape the end of each of the three leads remaining on the circuit board.

3. Bend into a "U" shape the replacement transistor leads.

4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacements

1. Heat and remove all solder from around the transistor leads.

2. Remove the heatsink mounting screw (if so equipped).

3. Carefully remove the transistor from the circuit board.

4. Insert new transistor in circuit board.

5. Solder each transistor lead, and clip off excess lead.

6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.

2. Bend the two remaining leads perpendicularly to the circuit board.

3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.

4. Securely crimp each connection and solder it.

5. Inspect (on the circuit board copper side) the solder joints of the two "original leads". If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuses and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.

2. Securely crimp leads of replacement component around stake 1/8 inch from top.

3. Solder the connections.

   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or “lift-off,” the board. The following guidelines and procedures should be followed whenever this condition is encountered.

In Critical Copper Pattern Areas

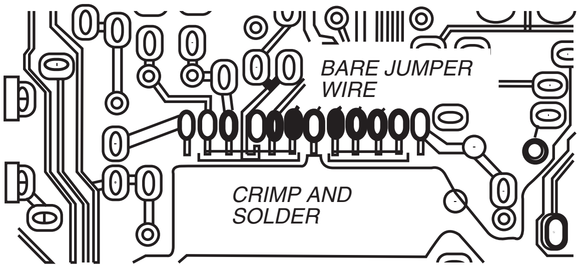
High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these areas is designated as Critical Copper Pattern. Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)

2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.



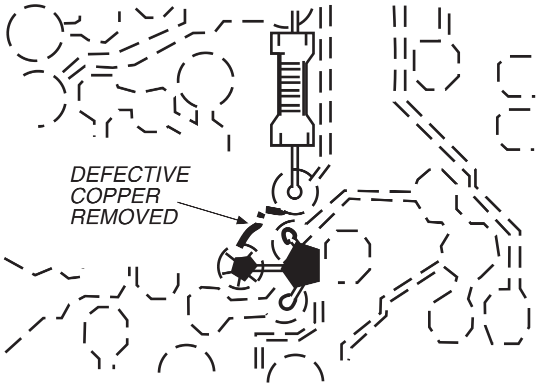
Install Jumper Wire and Solder

3. Bend a small “U” in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.

4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure hazardous condition will not exist if the jumper wire opens.

2. Trace along the copper pattern from both wire sides of the pattern break and locate the nearest component directly connected to the affected copper pattern.

3. Connect insulated 20-gauge jumper wire from the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

   CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

NOTE: ***These components are affixed with glue. Be careful not to break or damage any foil under the component or at the pins of the ICs when removing. Usually applying heat to the component for a short time while twisting with tweezers will break the component loose.***

Leadless Chip Components (surface mount)

Chip components must be replaced with identical chips due to critical foil track spacing. There are no holes in the board to mount standard transistors or diodes. Some chip capacitor or resistor board solder pads may have holes through the board, however the hole diameter limits standard resistor replacement to 1/8 watt. Standard capacitors may also be limited for the same reason. It is recommended that identical chip components be used. .

Chip resistors have a three digit numerical resistance code -1st and 2nd significant digits and a multiplier. Example: 162 = 1600 or 1.6KΩ resistor, 0 = 0Ω (jumper).

Chip capacitors generally do not have the value indicated on the capacitor. The color of the component indicates the general range of the capacitance.

Chip transistors are identified by a two letter code. The first letter indicates the type and the second letter, the grade of transistor.

Chip diodes have a two letter identification code as per the code chart and are a dual diode pack with either common anode or common cathode. Check the parts list for correct diode number.

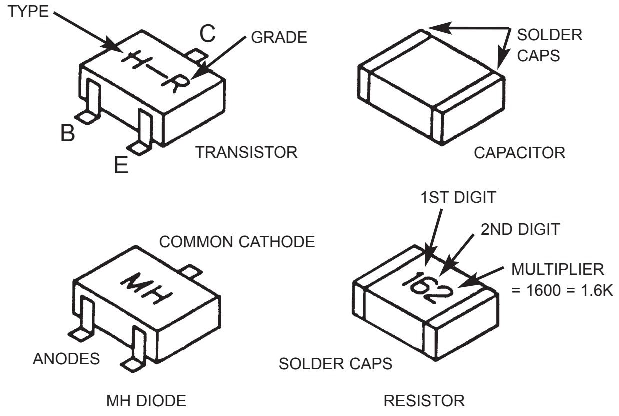
Component Removal

1. Use solder wick to remove solder from component end caps or terminals.
2. Without pulling up, carefully twist the component with tweezers to break the adhesive.
3. Do not reuse removed leadless or chip components since they are subject to stress fracture during removal .

Chip Component Installation

1. Put a small amount of solder on the board soldering pads.
2. Hold the chip component against the soldering pads with tweezers or with a miniature alligator clip and apply heat to the pad area with a 30 watt iron until solder flows. Do not apply heat for more than 3 seconds

Chip Components

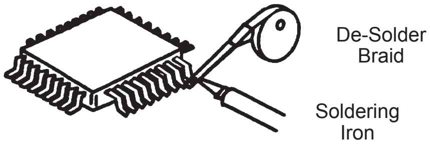

TYPE
C
GRADE
H–R
B
E
TRANSISTOR
SOLDER CAPS
CAPACITOR
1ST DIGIT
2ND DIGIT
COMMON CATHODE
MH
MULTIPLIER = 1600 = 1.6K
162
ANODES
SOLDER CAPS
MH DIODE
RESISTOR

How to Replace Flat-IC

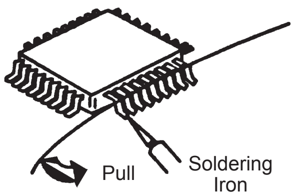
—Required Tools—

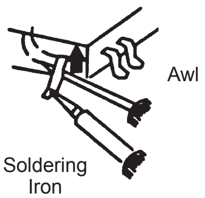
- Soldering iron
- De-solder braids
- iron wire or small awl
- Magnifier

1. Remove the solder from all of the pins of a Flat-IC by using a de-solder braid.

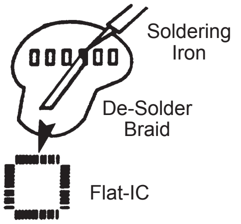

De-Solder Braid
Soldering Iron

2. Put the iron wire under the pins of the Flat-IC and pull it in the direction indicated while heating the pins using a soldering iron. A small awl can be used instead of the iron wire.

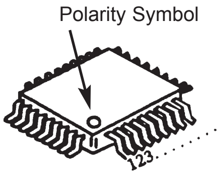

Iron Wire
Pull
Soldering Iron


Awl
Soldering Iron

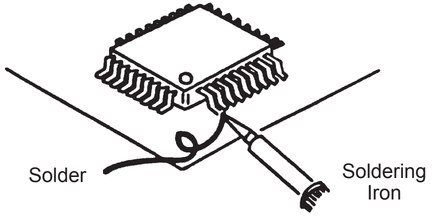
3. Remove the solder from all of the pads of the Fiat-IC by using a de-solder braid.


Soldering Iron
De-Solder Braid
Flat-IC

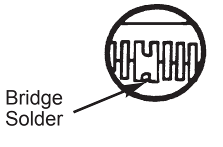
4. Position the new Flat-IC in place (apply the pins of the Flat-IC to the soldering pads where the pins need to be soldered). Properly determine the positions of the soldering pads and pins by correctly aligning the polarity symbol.

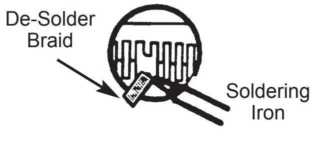

Polarity Symbol
123

5. Solder all pins to the soldering pads using a fine tipped soldering iron.


Solder
Soldering Iron

6. Check with a magnifier for solder bridge between the pins or for dry joint between pins and soldering pads. To remove a solder bridge, use a de-solder braid as shown in the figure below.


Bridge Solder


De-Solder Braid
Soldering Iron

Information for service about lead-free solder introduction

Hitachi introduced lead-free solder to conserve the "Earth Environment".
Please refer to the following before servicing.

(1) Characteristic of lead-free solder

Melting point of lead free solder is 40-50°C higher than solder containing lead.

(2) Solder for service
Following composition is recommended.
" Sn - 3.0Ag - 0.5Cu " , or " Sn - 0.7 Cu "
Lead solder can be used, but there is a possibility of failure due to insufficient strength of the solder.

Caution when using solder containing lead.
Please remove previous solder as much as possible from the soldering point.
When soldering, please perfectly melt the lead-free solder to mix well with the previous solder.

(3) Soldering iron for lead-free solder.
Melting point of lead-free solder is higher than solder containing lead.
Use of a soldering tool "with temperature control" and "with much thermal capacitance" is recommended.
(Recommended temperature control : 320°C - 450°C)

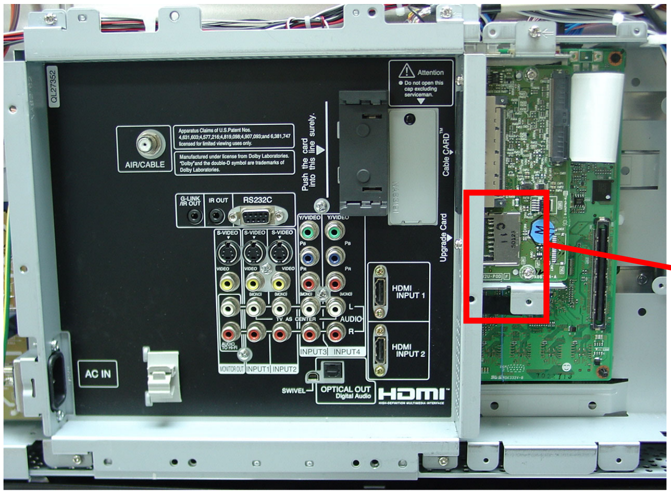
Recommended temperature

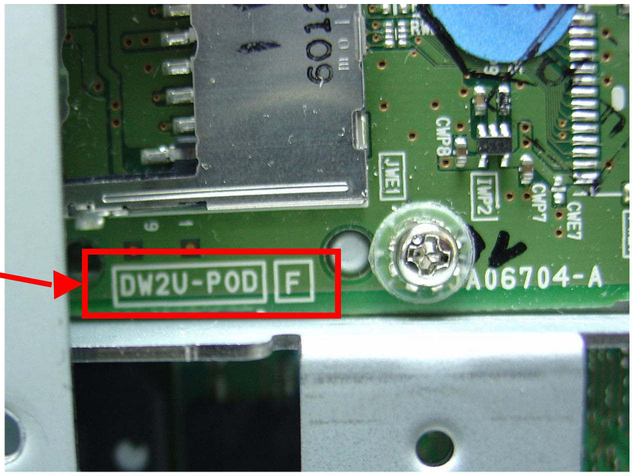
PWB with chip parts	320°C +/- 30°C
PWB without chip parts	380°C +/- 30°C
Chassis, metal, shield etc.	420°C +/- 30°C

(4) Identification of lead-free PWB

2004 models	>> lead-free solder is introduced
2006 models	>> lead-free solder apply

On lead-free PWB, "F" is added at the beginning of stamp on PWB. (e.g. DW2-POD F)


Attention
AIR/CABLE
RS232C
Cable CARD
Upgrade Card
HDMI INPUT 1
HDMI INPUT 2
INPUT3
INPUT4
INPUT1
INPUT2
AC IN
SWIVEL
OPTICAL OUT Digital Audio
HDMI


DW2U-POD
F
A06704-A
JME1
JMP2
CMP8
CMP7
CME7

AGENCY REGULATORY INFORMATION

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

FCC Information

This device complies with part15 of the FCC Rules.Operation is subject to the following two conditions : (1) This decide may not cause harmful interference and (2) This decide must accept any interference received, including interference that may cause undesired operation.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi America ,Ltd. Home Electronics Division may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Any cables that are supplied with the system must be replaced with identical cables in order to assure compliance with FCC rules. Order Hitachi spares as replacement cables.

Note

This Plasma Television receiver will display television closed captioning, (CC or 🗨), in accordance with paragraph 15.119 of the FCC rules.

INDUSTRY CANADA AGENCY REGULATORY INFORMATION

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.

TV GUIDE

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The TV Guide On Screen system is protected by one or more of the following issued United States patents 6,498,895; 6,418,556; 6,331,877; 6,239,794; 6,154,203; 5,940,073; 4,908,713; 4,751,578; 4,706,121.

Gemstar-TV Guide International Inc. and/or its related affiliates are not in any way liable for the accuracy or availability of the program schedule information or other data in the TV Guide On Screen system and cannot guarantee service availability in your area. In no event shall Gemstar-TV Guide International, Inc. and/or its related affiliates be liable for any damages in connection with the accuracy or availability of the program schedule information or other data in the TV Guide On Screen system.

ACKNOWLEDGMENTS AND TRADEMARKS

This Plasma Television complies with VESA DDC2B specifications, Plug & Play is a system with computer, peripherals (including monitors) and operating system. It works when the monitor is connected to a DDC ready computer that is running an operating system software that is capable for the plug & play.

When a Plug and Play PC is powered on, it sends a command to the Monitor requesting identification. The Monitor sends back a string of data including its characteristics.

TRADEMARK ACKNOWLEDGMENT

DDC™ is a trademark of Video Electronics Standard Association.
IBM PC/AT and VGA are registered trademarkds of International Business Machines Corporation of the U.S.A.
Apple and Macintosh are registered trademarks of Apple Computer, Inc.
VESA is a trademark of a nonprofit organization, Video Electronics Standard Association.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.

Notes on Closed Caption:
This Plasma Television receiver will display television closed captioning, (CC or 🗨), in accordance with paragraph 15.119 of the FCC rules.

DOLBY® DIGITAL

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INTRODUCTION

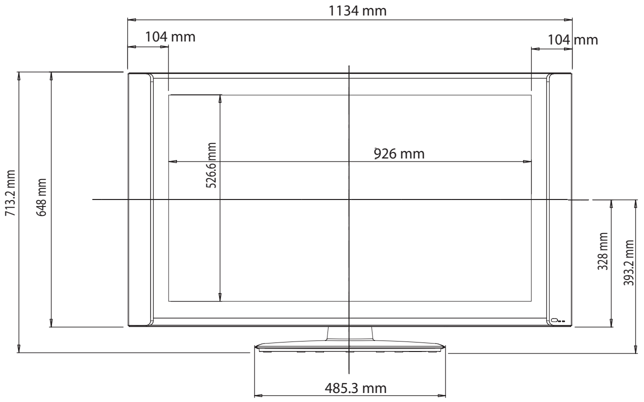
The Digital AV Block is inside of the Panel assembly controls most of the user functions of the complete TV set and conditions the signal to the plasma panel.

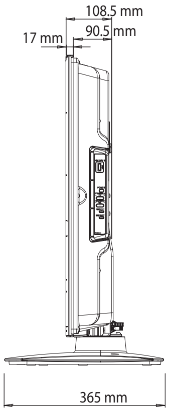
The 42" and 55" monitors contain the displaying device, which is the plasma display panel module, and the driving circuitry, which receives the signal from the Digital AV Block and after processing, delivers the image to the display module.

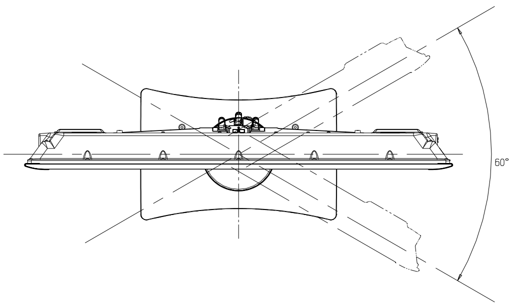
This HITACHI Service Manual is intended for the qualified service personnel and it contains the necessary information for troubleshooting the Plasma television set in case of malfunction.

DIMENSIONS:

42HDS69/HDT79/HDX99







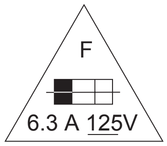
POWER RATINGS:

		Indicated Value			PST(W)		
		Max Rating		Average	Without POD.	With POD.	
No.	Model Name	(W)	(A)	Rating (W)	less than 1W	less than 14W	Chassis
1	42HDS69/HDT79 42HDX99	370W	3.4A	236W	0.6W	14W	DW-2U

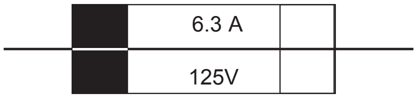
CIRCUIT PROTECTION

CAUTION: Below is an EXAMPLE only. See Replacement Parts List for details. The following symbol near the fuse indicates fast operation fuse (to be replaced). Fuse ratings appear within the symbol.

Example:



"RISK OF FIRE - REPLACE FUSE AS MARKED"



The rating of fuse F9A2 is 6.3 A - 125V.
Replace with the same type fuse for continued protection against fire.

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SPECIFICATIONS

FEATURES

A- Plasma

Model			42HDS69/42HDT79/42HDX99	
Dimension	Size	1	1134mm x 713.2mm x 365mm	
	Weight	2	39.8k g	
A/C Input Voltage	Input AC Voltage	3	AC108V~132V (with 3 Plug AC Power Cord inlet type ,1.8m length)	
	Input AC Frequency	4	60Hz	
	Power Consumption	5	370W, SBY/POD -SBY less than 1W/14W	
Front End	Front End(NTSC & ATSC)	6	ENGD6305 NTSC/ATSC(8VSB).64QAM.256QAM)	
	Available Channel	7	2~13	VHP
		8	14 ~ 69	UHF
		9	A-5~A-1,A~W,W+1~W+94	CATV
Input Signal	Video Signal	10	NTSC	
	Component Signal	11	480 i /p. 1080 i , 720p	
	PC Signal	12	VGA - UXGA fH:24KHz-1 09KHz,fV:50Hz-85Hz)	
	HDMI Signal	13	480i,480p,720p,1080i(EIA-861B)	3
Picture	Y/C Separation	14	3D Y/C (ON fix)	
	Line Correction	15	No	
	I-P Conversion	16	Motion Adaptive & Multi Angle Interpolation	FC6
	Picture Mode	17	Day.Night	
	Display Mode	18	42:1024i,55:768p	Video Signal
		19	42:1024i,55:768p	ComponentSignal
		20	42:1024i,55:768p	PinP Mode
		21		-
Sound Enhancement		22	BassBoost & Surround (Normal, Wide, Off)	
Adjustment	Settings for Video Signal	23	Picture,Contrast,Brightness,Color,Tint , Sharpness, W/B Temp.Black Enhancement .Contrast Mode.Color Management/Decoding ,Auto Color.Noise Reductfon.Auto Movie Mode, .Black Side Panel	
	Settings for Sound	24	Vol, Balance, Bass.Treble, Source, Internal Speakers ,Auto Noise Cancel.Perfect Volume.Mute.Soft Mute	
		25		
		26		
General Function	PinP Mode Split	27	With(ANT/CABLE DIGITAL CHANNEL & Video.480i ,720p,1080i)	Except Photo Input only HDT/HDX
	Strobe	28	With(3Pix:only ANT/CABLE DIGITAL CHANNEL,Video,480i)	Except Photo Input only HDT/HDX
		29		
	POP	30	With Main: ANT/CABLE DIGITAL CHANNEL,Video.480i ,720p,1080i)	Except Photo Input only HDT/HDX
	PIP	31	With(Main:ANT/CABLE DIGITAL CHANNEL,Video.480i ,720p,1080i)	Except Photo Input only HDT/HDX
	Freeze	32	With(3Pix:only ANT/CABLE DIGITAL CHANNEL,Video,480i)	Except Photo Input only HDT/HDX
	Wide Mode	33	7Mode	
	Aspect Video Selection	34	4:3 Standard/16:9 Standard1 /16:9 Standard 2 4:3 Expanded/Zoom1/Zoom 2/16:9 Zoom	
	PC	35	Full/Normal/Real (Real 42:VGA,55:VGA/SVGA/XGA/WXGA)	
	Film Theater	36	With(Auto Movie Mode:On/Off)	
	Color Temperature	37	4Mode (High/Medium/Standard/Black & White)	Black & White only HDT/HDX
	Input Signal Selection	38	VIDEO1/2/3/4/5, Cable/ Air,IEEE1394,Photo Input	IEEE1394 only HDT/HDX Photo Input only HDT/HDX

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SPECIFICATIONS

FEATURES

Model			42HDS69/42HDT79/42HDX99	
General Function	Gamma Correction	39	Only for Service Menu	
	Picture Enhancer	40	-	
	Input Signal Identification	41	yes	
	Audio Special Mode	42	No	
	Power Save Mode	43	With (On/Off) (Video In)	LED Normal: Blue Power Save: Orange Stand by: Red
		44		
	Burning Protection	45	With (Raster Shift:3 option.All White Pattern)	
	OSD Language (VIDEO)	46	ENGLISH.FRANCAIS.ESPANOL	
	Power Swivel	47	With 42HDT79 and 42HDX99 only	
R/C Handset		48	CLU-3861WL/CLU-123S/CLU-4352UG2	PANASONIC/UEI/HOSHIDEN
In/Out Terminal		49		
	Composite Video Input (VIDEO1~5)	50	5 Input: RCA pin* 5 (1 Input Side Panel)	
	S-In(S2 Terminal) (Video/S are common selector, priority is S-In) .	51	2 InputMini Din-4P x 2	
	Component Signal Input (VIDEO3.VIDEO4.VIDEO5)	52	3 Input:RCA pin x 9(Y of VIDEO1/2/5 is common input for Composite-In)	
	Digital Input(HDMH-HDCP)	53	3 Input:HDMI(18P)X3 (Selected by component Video1/2/5.Digital input priority)	
	Audio In (L/R) (Lch:mono)	54	5 Input:RCApinx10	
	Auto Link	55	1 Input (VIDEO2 LINK)	Auto Link Function
	Video Control Terminal (BS)	56	No	
	U/V Ant Input	57	CABLE / AIR	
	BS-I/F Input	58	No	
	Video Monitor Out Terminal	59	1 Output: RCA pin x 1	
	Audio Output Terminal	60	1 Output UR:RCA pin x 2(Common input for No.59)	
	Audio Monitor Out Terminal	61	1 Output L/R:RCA pin x 2	
	IR-OUTPUT	62	2 Terminal	42HDT79/42HDX99 Only
	Headphone Terminal	63	No	
		64		
	IEEE 1394 Input	65	2 (4pin connector)	42HDX99 Only
	RS-232C Terminal	66	1 (Female type)	
	Photo Input	67	1 (On Side panel)	42HDT79/42HDX99 Only
	Audio Optical Output	68	1 (Square type)	
Front Key	Main Power Switch	69	Yes , below panel	
	Power On/off Switch	70	Yes, on side panel	
	IR Receiving Unit	71	Yes, on front panel	
	Power Indicator LED	72	Yes, on front panel	
	Menu Control Key	73	Yes, on side panel (Channel U/D, Vol U/D, A/V Input Select , Menu Select)	
Option	POP TV Stand	74	With	
	Wall Mount Unit	75	With	
		76	-	

FEATURES & DIFFERENCES

Model Name	Class	Chassis	Series Name	Cabinet Design	Aspect	ATSC	ATSC/NTSC 1Tuner	QAM Basic Digital Cable	POD	MPEG Decoder	EPG Gemstar	M/C
42HDX99	HDX	DW2C	Directors	Leggero(ALL BLK)	16x9	X	X	X	X	X	X	USB
42HDT79	HDT	DW2B	UltraVision	Leggero(SP:BLK, DECO:SIL)	16x9	X	X	X	X	X	X	USB
42HDS69	HDS	DW2A	UltraVision	Leggero(ALL SIL)	16x9	X	X	X	X	X	-	-

Model Name	Class	DTV NTSC FORMAT	Seine	3/2 Pulldown	Fill Mode	Memory by inputs	Shield	Comb Filter	Resolution	OSD	Color Temp
42HDX99	HDX	1080i	Seine2	Auto/off	7modes	X	31% sputter	3DYC	A4：1024x1080	06 OSD Dir	4Mode(High, Med,Std, B&W
42HDT79	HDT	1080i	Seine2	Auto/off	7modes	X	36% sputter	3DYC	A4：1024x1080	06 OSD A	3Mode(High, Med,Std)
42HDS69	HDS	1080i	Seine2	Auto/off	7modes	X	36% sputter	3DYC	A4：1024x1080	06 OSD B	3Mode(High, Med,Std)

Model Name	Class	PIP	AV NET	Remote			IR Pass Thru	Descrete Code	Dolby	Sound function		
				Type	Source Color	Simple UEI				Perfect Volume	Surround	BassBoost
42HDX99	HDX	Digital Tuner/Ext SPLIT	X	Rotate	PANA/Black	X	X	X	AC3 Downmix	×	×	×
42HDT79	HDT	Digital Tuner/Ext SPLIT	-	Rotate	PANA/Black	-	X	X	AC3 Downmix	×	×	×
42HDS69	HDS	Digital Tuner/Ext SPLIT	-	TVU	Hoshiden/BLACK	-	-	X	AC3 Downmix	×	×	×

Model Name	Class	TV Center	Output Watt	Speaker	Rear Jacks												
					Digital I/F		RS232C	IR-Out	YPbPr	S IN	AV IN	S OUT	V OUT	AUDIO OUPUT	Y As Composite	6CH OUT	RF
					IEEE1394	HDMI(Ver1.1)											
42HDX99	HDX	L/mono	36	2FR2W	1	2	1	2	2(1H,2H,2.14H)	2	4	1	1	1	X	OPT	1
42HDT79	HDT	L/mono	36	2FR2W	-	2	1	2	2(1H,2H,2.14H)	2	4	1	1	1	X	OPT	1
42HDS69	HDS	L/mono	36	2FR2W	-	2	1	-	2(1H,2H,2.14H)	2	4	1	1	1	X	OPT	1

Model Name	Class	Front/Side Jack			
		Composite	L/R	HDMI (Ver1.1)	Y,Pb,Pr
42HDX99	HDX	1	1	1	1
42HDT79	HDT	1	1	1	1
42HDS69	HDS	1	1	1	1

Model Name	Class	Power LED	Downloadable V Chip	Energy Star	PLC	Option Wall mount	Swivel Pow/Manual	Table Top Stand	Hotel Mode	Adjust Color Decoder	Color Manage	Contrast Mode
42HDX99	HDX	Blue	X	X	X	WM51	Pow	× BLK(9000)	×	X	X	X
42HDT79	HDT	Blue	X	X	X	WM51	Pow	× SIL(9000)	×	X	X	X
42HDS69	HDS	Blue	X	X	X	WM51	Manual	× SIL(9000)	×	-	-	X

Model Name	Class	White Level Black Level
42HDX99	HDX	X
42HDT79	HDT	-
42HDS69	HDS	-

General Specification

Model Spec

Model Name Item		42HDS69/42HDT79/42HDX99
Destination		U.S.A. / CANADA
Exterior	Cabinet Dimensions (Main Body) (Speaker & stand inclusive)	1134mm x 713.2mm x 365mm
	Frame Color Screen	Dark Charcoal Metallic (HDT/HDX) Brightness Silver (HDS)
	Stand	Inclusive (With Power Swivel)
	Weight (Main Body) (Speaker & stand inclusive) (Main Body: Packed)	39.20 kg typ. 44.0 kg
	Screen Size	922x524mm(42Inch 16:9)
Display Panel	Resolution	1024x1080 pixels
	Dot Pitch (H)	0.90mm
	Dot Pitch (V)	0.485mm
	Viewing Angle (H)	±85°
	Viewing Angle (V)	±85°
Front Filter	Surface Finishing	1.2ohm Sputter
Brightness	Peak Brightness (1% window)	320 cd/m^2 or more (When VIDEO, Day mode, Color temperature 'HIGH' Input Signal Amplitude 100 % is set)
	All White Pattern	5Ocd/m^2 or more
Contrast	Contrast ratio	1000 : 1 (typ)
Color Reproduction	Color Reproduction	16.7 million colors or more
Audio Output	Audio Output	18W+ 18W(6ohm>,10%Distortion)
Panel Operation	Main Power Switch	PUSH (LOCK) 1 switch
	Power Switch	PUSH (NON-LOCK) 1 switch
Input Terminal	Video/Audio Input	RCA , HDMI DV connector
Output Terminal	Audio Line Output	Sub Woofer Output 1 system
	Speaker Output	-
Power Supply Source	Connector	3 Polarity Receptacle
	Input Voltage	Single Phase AC108-132V, 6OHz
Guaranteed Environment Condition	Temp. (Operating)	5~35°C (41F~95F)
	Temperature (Stored)	-15~60°C (5F~140F)
	Humidity (Operating)	20~80%RH (Non-condensing)
	Humidity (Stored)	20~90%RH (Non-condensing)
	Atmospheric Pressure (Operating)	800 to 1114hPa (altitude: 1888m to -757m, 6194feet to -2483feet)
	Atmospheric Pressure (Storage)	300 to 1114hPa (Altitude: 9727m to -757m, 31912feet to -2483feet)

Environment Specifications

NO	Item	Specification
1	Operating Temp.	+5℃~+35℃
2	Stock Temp.	-15℃~+60℃
3	Operating Humidity	20%~80%RH
4	Stock Humidity	20%~90%RH
5	Operating Atmosphere Pressure	800~1114h Pa (1888m~-757m)
6	Stock Atmosphere Pressure	300~1114h P a (4727m~-757m)
7	Warranty Gravity Vertical	0.85 G
8	Warranty Drop High	30cm
9	Tilt Angle	12° Over

Display Specification

Picture Format for Each Input Source
Aspect, Virtual HD, Black Side Panel, Vertical Position, PIP Mode

9.1.1 Aspect

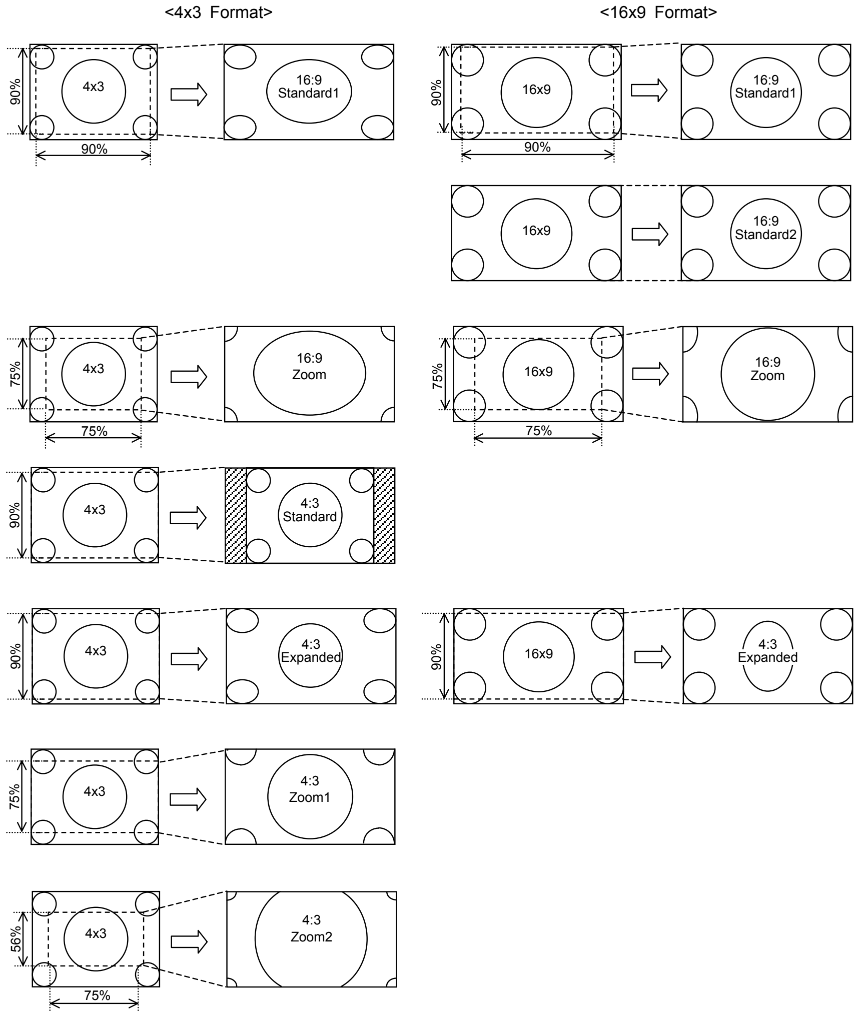
Yes : Selectable - : Un-selectable

Input Signal			Auto Aspect	Aspect Video ID	Aspect						
					16:9 Standard 1	16:9 Standard 2	16:9 Zoom	4:3 Standard	4:3 Expanded	4:3 Zoom 1	4:3 Zoom 2
ANT Analog	Video	NTSC	-	4x3	Yes	-	Yes	Yes	Yes	Yes	Yes
ANT Digital	YC_BC_R	480p	-	16x9	Yes	-	Yes	-	Yes	-	-
		480i	-	4x3	-	-	-	Yes	Yes	Yes	Yes
	YP_BP_R	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
IEEE1394 Digital	YC_BC_R	480p	-	16x9	Yes	-	Yes	-	Yes	-	-
		480i	-	4x3	-	-	-	Yes	Yes	Yes	Yes
	YP_BP_R	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
	-	-	-	1394DV	-	-	-	Yes	Yes	Yes	Yes
Input 1	HDMI	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
		480p 480i	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No Info	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-	Yes	-	Yes	Yes	Yes	Yes	Yes
	Video S-Video	NTSC	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-	Yes	-	Yes	Yes	Yes	Yes	Yes
Input 2	HDMI	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
		480p 480i	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No Info	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-	Yes	-	Yes	Yes	Yes	Yes	Yes
	Video S-Video	NTSC	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-	Yes	-	Yes	Yes	Yes	Yes	Yes
Input 3	YP_BP_R	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
		480p 480i	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-							
		No Signal	-	-							
	Video	NTSC	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-							

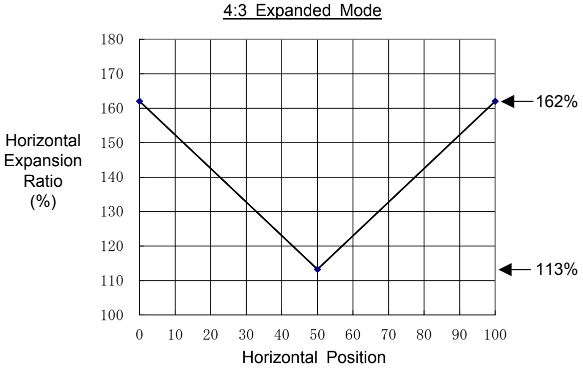
(Continuation)

Input Signal			Auto Aspect	Aspect Video ID	Aspect						
					16:9 Standard 1	16:9 Standard 2	16:9 Zoom	4:3 Standard	4:3 Expanded	4:3 Zoom 1	4:3 Zoom 2
Input 4	YP_BP_R	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
		480p 480i	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-							
		No Signal	-	-							
	Video	NTSC	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-							
Input 5	HDMI	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
		480p 480i	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No Info	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-	Yes	-	Yes	Yes	Yes	Yes	Yes
	YP_BP_R	1080i/720p	-	16x9	Yes	Yes	Yes	-	Yes	-	-
		480p 480i	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-							
		No Signal	-	-							
	Video	NTSC	Auto ON	16x9	Yes Initial	-	Yes	-	-	-	-
				Letter	-	-	-	Yes	Yes	Yes Initial	Yes
				4x3	-	-	-	Yes	Yes Initial	Yes	Yes
				No ID	Yes	-	Yes	Yes	Yes	Yes	Yes
			Auto OFF	-							
Horizontal Expansion				16x9	105%	100%	133%	-	133%	-	-
				4x3	105%	100%	133%	75%	100%	100%	133%
Vertical Expansion					105%	100%	133%	110%	110%	133%	176%

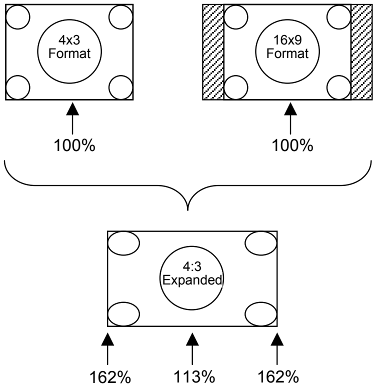
[Expansion]



<4x3 Format>
<16x9 Format>
4x3
90%
90%
16:9
Standard1
16x9
90%
90%
16:9
Standard1
16x9
16:9
Standard2
4x3
75%
75%
16:9
Zoom
16x9
75%
75%
16:9
Zoom
4x3
90%
4:3
Standard
4x3
90%
4:3
Expanded
16x9
90%
4:3
Expanded
4x3
75%
4:3
Zoom1
4x3
56%
75%
4:3
Zoom2



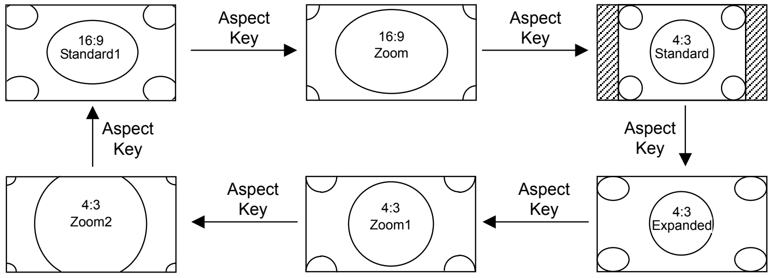
4:3 Expanded Mode
Horizontal Expansion Ratio (%)
180
170
160
150
140
130
120
110
100
0
10
20
30
40
50
60
70
80
90
100
Horizontal Position
162%
113%



4x3
Format
16x9
Format
100%
100%
4:3
Expanded
162%
113%
162%

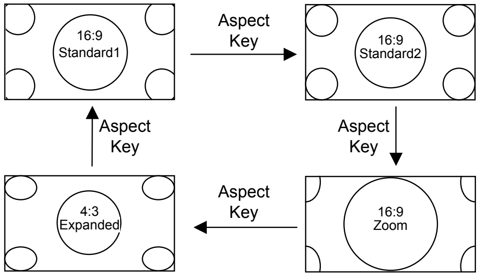
Aspect Key Operation

(1) ANT Analog Channel


16:9
Standard1
Aspect
Key
16:9
Zoom
Aspect
Key
4:3
Standard
Aspect
Key
Aspect
Key
4:3
Zoom2
Aspect
Key
4:3
Zoom1
Aspect
Key
4:3
Expanded

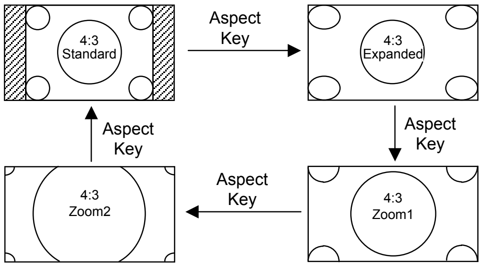
(2) ANT Digital Channel

(a) Aspect: 16x9

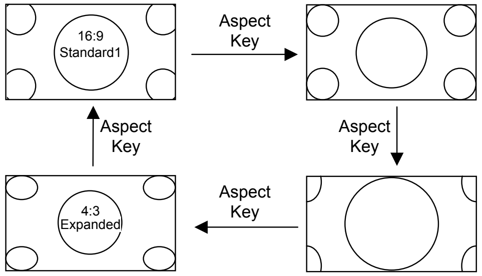

16:9
Standard1
Aspect
Key
16:9
Standard2
Aspect
Key
Aspect
Key
4:3
Expanded
Aspect
Key
16:9
Zoom

(This mode is for 1080i/720p only.)

(b) Aspect: 4x3

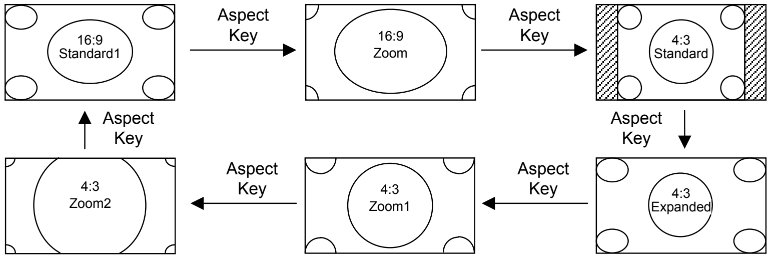

4:3
Standard
Aspect
Key
4:3
Expanded
Aspect
Key
Aspect
Key
4:3
Zoom2
Aspect
Key
4:3
Zoom1

(3) HDMI/YPBPR: 1080i/720p


16:9
Standard1
Aspect
Key
Aspect
Key
Aspect
Key
4:3
Expanded
Aspect
Key

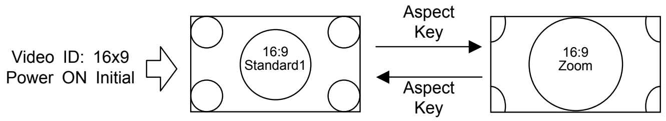
(4) HDMI/YPBPR: 480p/480i, Video/S-Video

(4-1) Auto Aspect OFF

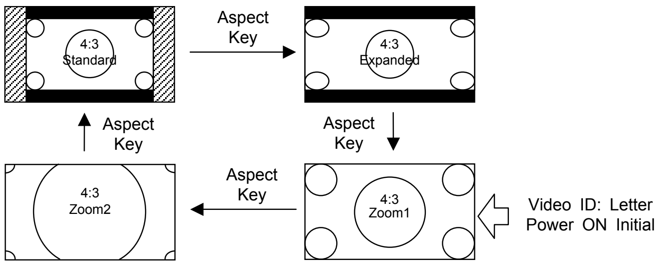

16:9
Standard1
Aspect
Key
16:9
Zoom
Aspect
Key
4:3
Standard
Aspect
Key
Aspect
Key
4:3
Zoom2
Aspect
Key
4:3
Zoom1
Aspect
Key
4:3
Expanded

(4-2) Auto Aspect ON

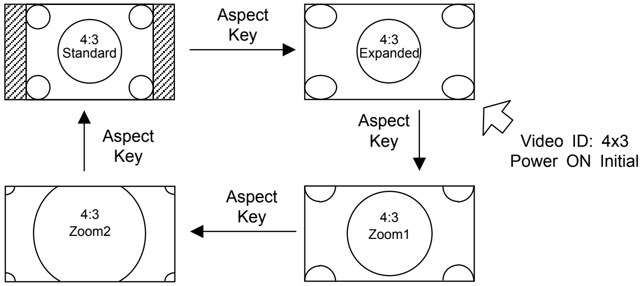
(a) Video ID/HDMI Info: 16x9


Video ID: 16x9
Power ON Initial
16:9
Standard1
Aspect
Key
Aspect
Key
16:9
Zoom

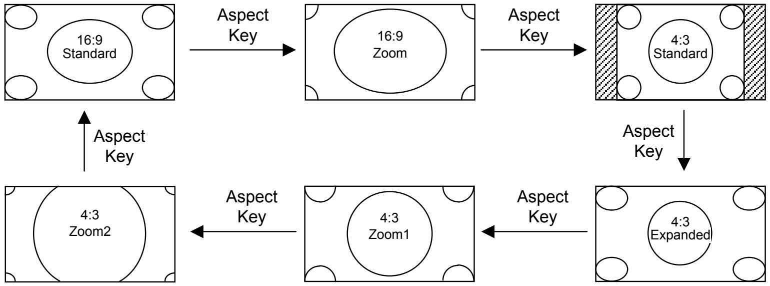
(b) Video ID/HDMI Info: Letter


4:3
Standard
Aspect
Key
4:3
Expanded
Aspect
Key
Aspect
Key
4:3
Zoom2
Aspect
Key
4:3
Zoom1
Video ID: Letter
Power ON Initial

(c) Video ID/HDMI Info: 4x3


4:3
Standard
Aspect
Key
4:3
Expanded
Aspect
Key
Video ID: 4x3
Power ON Initial
Aspect
Key
4:3
Zoom2
Aspect
Key
4:3
Zoom1

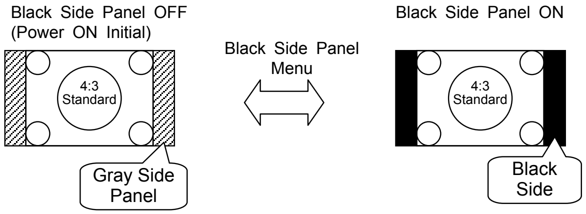
(d) No Video ID, No HDMI Info


16:9
Standard
Aspect
Key
16:9
Zoom
Aspect
Key
4:3
Standard
Aspect
Key
Aspect
Key
4:3
Zoom2
Aspect
Key
4:3
Zoom1
Aspect
Key
4:3
Expanded

Vertical Position Operation

Input				Vertical Position					
				16:9 Standard1/2	16:9 Zoom	4:3 Standard	4:3 Expanded	4:3 Zoom 1	4:3 Zoom 2
ANT Analog	Video	NTSC	4x3	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
ANT Digital	YPBPR	1080i 720p	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
		480p	4x3	-	-	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
		480i	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
			4x3	-	-	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
IEEE1394	YPBPR	1080i 720p	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
		480p 480i	4x3	-	-	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
Input 1 - 2	HDMI	1080i 720p	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
		480p 480i	16x9 4x3	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
	S-Video Video	NTSC	-	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
Input 3 - 4	YPBPR	1080i 720p	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
		480p 480i	16x9 4x3	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
	Video	NTSC	-	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
Input5	HDMI	1080i 720p	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
		480p 480i	16x9 4x3	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
	YPBPR	1080i 720p	16x9	±0 step Gray out	±10 step (±30 lines)	-	±10 step (±10 lines)	-	-
		480p 480i	16x9 4x3	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
	Video	NTSC	-	±0 step Gray out	±10 step (±30 lines)	±0 step Gray out	±10 step (±10 lines)	±10 step (±30 lines)	±10 step (±50 lines)
PIP Mode	SPLIT/POP/ PIP/STROBE			±0 step Gray out					

9.1.4 Black Side Panel Operation


Black Side Panel OFF
(Power ON Initial)
4:3
Standard
Gray Side
Panel
Black Side Panel
Menu
Black Side Panel ON
4:3
Standard
Black
Side

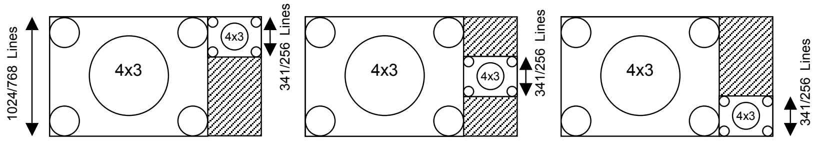
PIP Mode

PIP Mode	Main \ Sub			Digital						Component/Composite/S-IN/HDMI					
				1080i	720p	480p	480p	480i	480i	1080i	720p	480p	480p	480i	480i
				16x9	16x9	16x9	4x3	16x9	4x3	16x9	16x9	16x9	4x3	16x9	4x3
POP	Digital (Air or Cable)	1080i	16x9	-	-	-	-	-	-	-	-	-	-	-	-
		720p	16x9	-	-	-	-	-	-	-	-	-	-	-	-
		480p	16x9	-	-	-	-	-	-	-	-	-	-	-	-
		480p	4x3	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
		480i	16x9	-	-	-	-	-	-	-	-	-	-	-	-
		480i	4x3	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
	Component Composite S-IN HDMI	1080i	16x9	-	-	-	-	-	-	-	-	-	-	-	-
		720p	16x9	-	-	-	-	-	-	-	-	-	-	-	-
		480p	16x9	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1	-	-	-	-	-	-
		480p	4x3	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
		480i	16x9	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1	-	-	-	-	-	-
		480i	4x3	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
PIP 16x9	Digital (Air or Cable)	1080i	16x9	-	-	-	-	-	-	Yes	Yes	Yes*2	-	Yes*2	-
		720p	16x9	-	-	-	-	-	-	Yes	Yes	Yes*2	-	Yes*2	-
		480p	16x9	-	-	-	-	-	-	Yes	Yes	Yes*2	-	Yes*2	-
		480p	4x3	-	-	-	-	-	-	-	-	-	-	-	-
		480i	16x9	-	-	-	-	-	-	Yes	Yes	Yes*2	-	Yes*2	-
		480i	4x3	-	-	-	-	-	-	-	-	-	-	-	-
	Component Composite S-IN HDMI	1080i	16x9	Yes	Yes	Yes	-	Yes	-	-	-	-	-	-	-
		720p	16x9	Yes	Yes	Yes	-	Yes	-	-	-	-	-	-	-
		480p	16x9	Yes*2	Yes*2	Yes*2	-	Yes*2	-	-	-	-	-	-	-
		480p	4x3	-	-	-	-	-	-	-	-	-	-	-	-
		480i	16x9	Yes*2	Yes*2	Yes*2	-	Yes*2	-	-	-	-	-	-	-
		480i	4x3	-	-	-	-	-	-	-	-	-	-	-	-
PIP 4x3	Digital (Air or Cable)	1080i	16x9	-	-	-	-	-	-	-	-	Yes*1	Yes	Yes*1	Yes
		720p	16x9	-	-	-	-	-	-	-	-	Yes*1	Yes	Yes*1	Yes
		480p	16x9	-	-	-	-	-	-	-	-	Yes*1	Yes	Yes*1	Yes
		480p	4x3	-	-	-	-	-	-	-	-	-	-	-	-
		480i	16x9	-	-	-	-	-	-	-	-	Yes*1	Yes	Yes*1	Yes
		480i	4x3	-	-	-	-	-	-	-	-	-	-	-	-
	Component Composite S-IN HDMI	1080i	16x9	-	-	-	Yes	-	Yes	-	-	-	-	-	-
		720p	16x9	-	-	-	Yes	-	Yes	-	-	-	-	-	-
		480p	16x9	-	-	-	Yes*2	-	Yes*2	-	-	-	-	-	-
		480p	4x3	-	-	-	-	-	-	-	-	-	-	-	-
		480i	16x9	-	-	-	Yes*2	-	Yes*2	-	-	-	-	-	-
		480i	4x3	-	-	-	-	-	-	-	-	-	-	-	-
SPLIT	Digital (Air or Cable)	1080i	16x9	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
		720p	16x9	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
		480p	16x9	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
		480p	4x3	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
		480i	16x9	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
		480i	4x3	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
	Component Composite S-IN HDMI	1080i	16x9	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
		720p	16x9	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
		480p	16x9	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
		480p	4x3	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
		480i	16x9	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
		480i	4x3	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
STROBE (4pix)	Digital (Air or Cable)	1080i	16x9	Yes	-	-	-	-	-	-	-	-	-	-	-
		720p	16x9	-	Yes	-	-	-	-	-	-	-	-	-	-
		480p	16x9	-	-	Yes	-	-	-	-	-	-	-	-	-
		480p	4x3	-	-	-	Yes	-	-	-	-	-	-	-	-
		480i	16x9	-	-	-	-	Yes	-	-	-	-	-	-	-
		480i	4x3	-	-	-	-	-	Yes	-	-	-	-	-	-
	Component Composite S-IN HDMI	1080i	16x9	-	-	-	-	-	-	Yes	-	-	-	-	-
		720p	16x9	-	-	-	-	-	-	-	Yes	-	-	-	-
		480p	16x9	-	-	-	-	-	-	-	-	Yes	-	-	-
		480p	4x3	-	-	-	-	-	-	-	-	-	Yes	-	-
		480i	16x9	-	-	-	-	-	-	-	-	-	-	Yes	-
		480i	4x3	-	-	-	-	-	-	-	-	-	-	-	Yes

Yes*1: Auto Aspect OFF

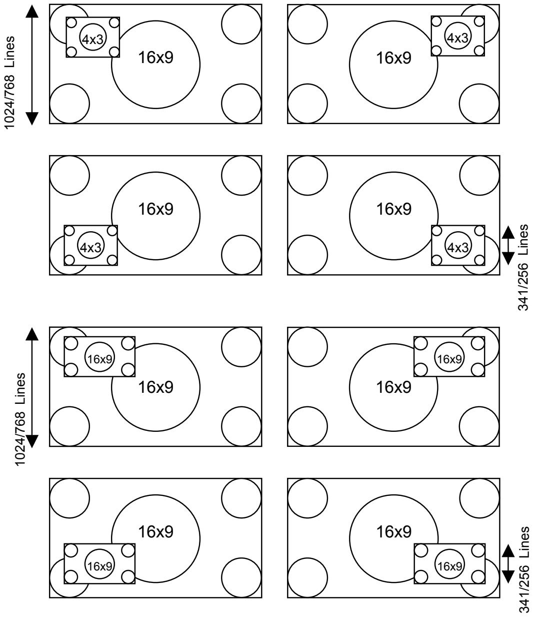
Yes*2: Auto Aspect ON

POP Mode:



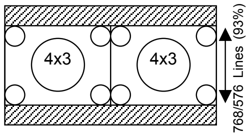
1024/768 Lines
4x3
4x3
341/256 Lines
4x3
4x3
341/256 Lines
4x3
4x3
341/256 Lines

PIP Mode:



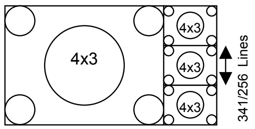
1024/768 Lines
4x3
16x9
4x3
16x9
16x9
4x3
16x9
4x3
341/256 Lines
1024/768 Lines
16x9
16x9
16x9
16x9
16x9
16x9
16x9
16x9
341/256 Lines

SPLIT Mode:



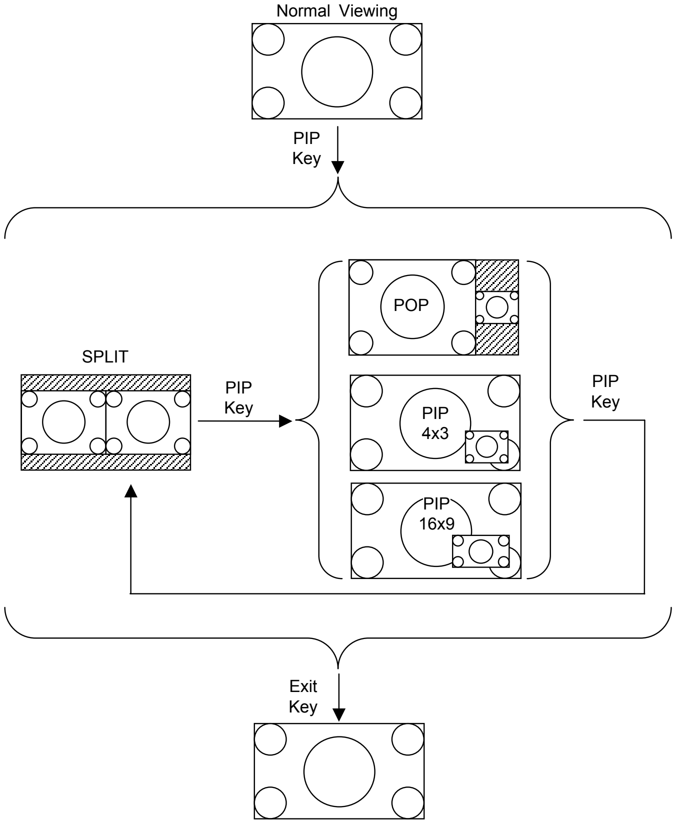
4x3
4x3
768/576 Lines (93%)

STROBE Mode:



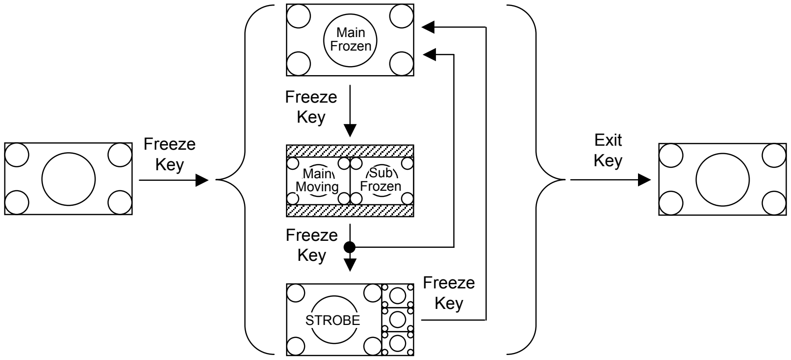
4x3
4x3
4x3
4x3
341/256 Lines

(1) PIP Key Operation

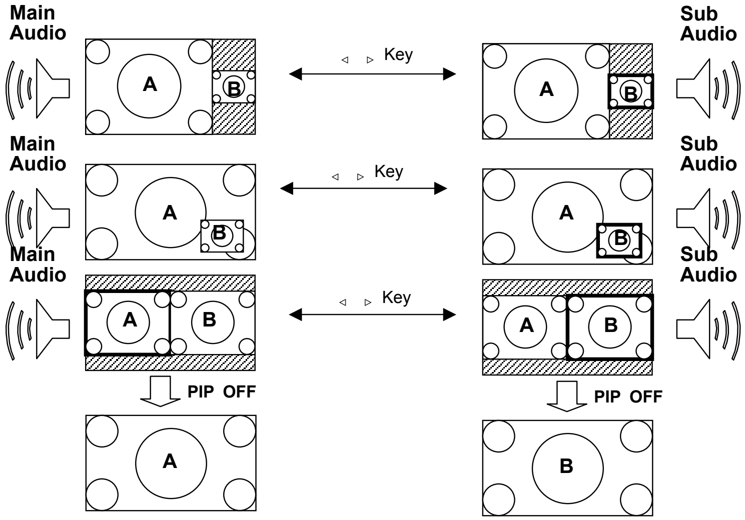

Normal Viewing
PIP
Key
SPLIT
PIP
Key
POP
PIP
4x3
PIP
16x9
PIP
Key
Exit
Key

(Note)
If PIP Key is pushed from a Normal screen, PIP of Last Mode will be displayed.
A shipment setup of PIP Mode is SPLIT Mode.
POP/PIP Mode cannot display 720p/480p signals. Therefore, it displays by SPLIT Mode.
・ When Last mode is POP/PIP Mode and a Main signal is 1080i, PIP Mode is set to PIP.
・ When Last mode is POP/PIP Mode and a Main signal is 480i/NTSC, PIP Mode is set to PIP.
・ SURF Mode is not displayed at a V-Chip setup. SPLIT Mode is displayed at this time.
When EXIT Key is pushed, PIP turns off.
When PIP is turns off, PIP Mode of a display turns into Last Mode.

(2) Freeze Operation


Freeze
Key
Main
Frozen
Freeze
Key
Main
Moving
Sub
Frozen
Freeze
Key
STROBE
Freeze
Key
Exit
Key

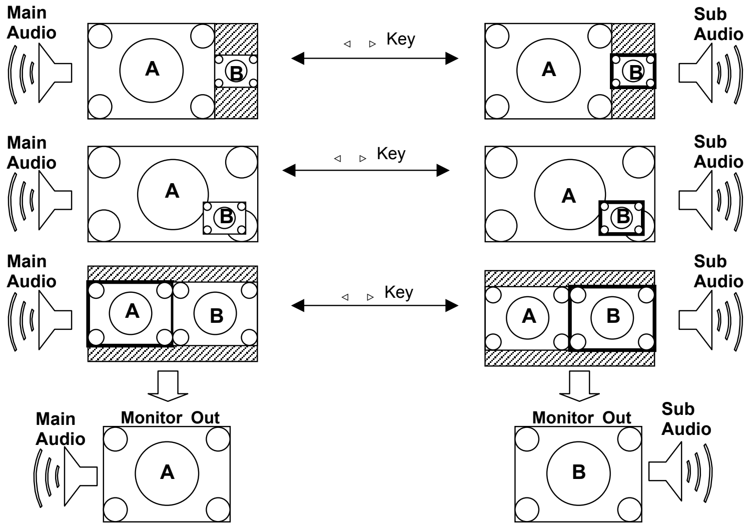
(3) SWAP Operation


Main
Audio
A
B
◃ ▹ Key
Sub
Audio
A
B
Main
Audio
A
B
◃ ▹ Key
Sub
Audio
A
B
Main
Audio
A
B
◃ ▹ Key
Sub
Audio
A
B
PIP OFF
A
PIP OFF
B

(Note)
When right and left Key are pushed, the sound of Main and Sub interchanges.
A Channel/Input change can do the screen out of which the sound has come.
When PIP OFF [EXIT Key], the screen where sound is sounding turns into a normal screen.

(4) Monitor Out

(4-1) Set the Monitor out: Monitor out


Main Audio
Key
Sub Audio
A
B
Main Audio
Key
Sub Audio
Main Audio
Key
Sub Audio
Main Audio
Monitor Out
Monitor Out
Sub Audio

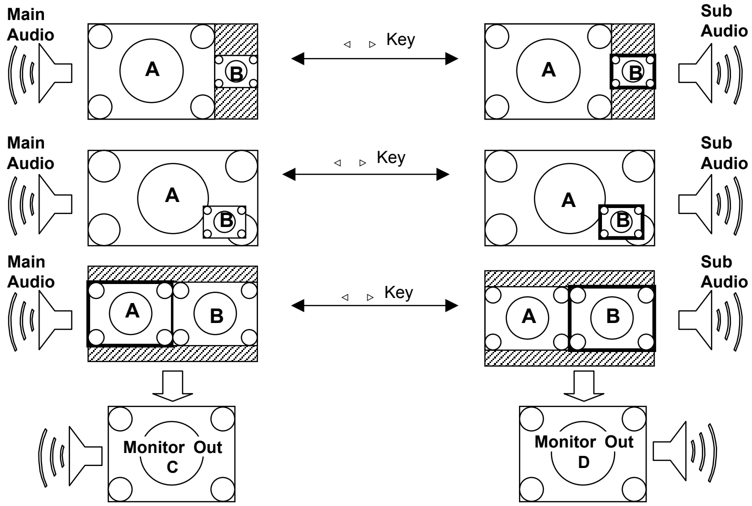
(Note)

When right and left Key are pushed, the sound of Main and Sub interchanges.
The picture and sound of the selected picture are outputted from Monitor out.
When the selected picture is Component or HDMI signal and audio out is monitor, monitor out is no picture and no audio.
When the selected picture is Component or HDMI signal and audio out is HiFi out, monitor out is no picture but audio is output.
When the selected picture is Composite Video signal, S-Video of monitor out is no picture.
When Macrovision signal is included in the ANT Digital channel, monitor out is no picture and no audio.

Main/Sub Audio Select

Input Mode				Monitor Out			
				S-Video	Video	L/R	HiFi
ANT (AIR or CABLE)	Digital Channel	No Macrovision	S-Video	YES	YES	YES	YES
		Macrovision	S-Video	-	-	-	YES
	Analog Channel		Video	-	YES	YES	YES
Input1	HDMI_1			-	-	-	YES
	S-Video_1			YES	YES	YES	YES
	Video_1			-	YES	YES	YES
Input2	HDMI_2			-	-	-	YES
	S-Video_2			YES	YES	YES	YES
	Video_2			-	YES	YES	YES
Input3	YP_BP_R_3			-	-	-	YES
	Video_3			-	YES	YES	YES
Input4	YP_BP_R_4			-	-	-	YES
	Video_4			-	YES	YES	YES
Input5 Side	HDMI_5			-	-	-	YES
	YP_BP_R_5			-	-	-	YES
	Video_5			-	YES	YES	YES

(4-2) Set the Monitor out: TV out


Main Audio
Key
Sub Audio
A
B
Main Audio
Key
Sub Audio
Main Audio
Key
Sub Audio
Monitor Out
C
Monitor Out
D

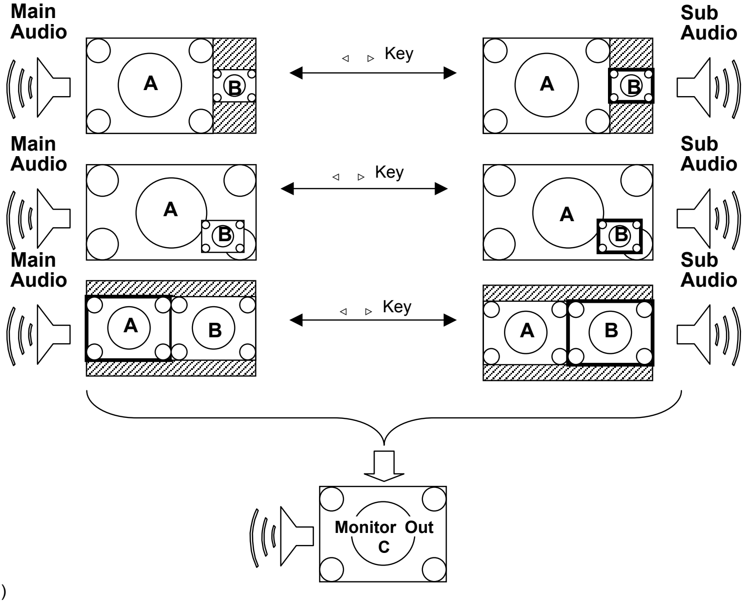
(Note)

When right and left Key are pushed, the sound of Main and Sub interchanges.
The picture and sound of ANT is outputted from Monitor out.
When ANT is analog channel, S-Video of monitor out is no picture.
When Macrovision signal is included in the ANT Digital channel, monitor out is no picture and no audio.

Main/Sub Audio Select

Input Mode				Monitor Out: TV out			
				S-Video	Video	L/R	HiFi
ANT (AIR or CABLE)	Digital Channel	No Macrovision	S-Video	YES ANT	YES ANT	YES ANT	YES ANT
		Macrovision	S-Video	-	-	-	YES ANT
	Analog Channel		Video	-	YES ANT	YES ANT	YES ANT
Input_1	HDMI_1		YP_BP_R	YES ANT Digital only	YES ANT	YES ANT	YES ANT
	S-Video_1						
	Video_1						
Input_2	HDMI_2		YP_BP_R				
	S-Video_2						
	Video_2						
Input_3	YP_BP_R_3						
	Video_3						
Input_4	YP_BP_R_4						
	Video_4						
Input_5 Side	HDMI_5		YP_BP_R				
	YP_BP_R_5						
	Video_5						

(4-3) At the time of reservation videotape recording


Main Audio
Sub Audio
◃ ▹ Key
A
B
Main Audio
Sub Audio
◃ ▹ Key
A
B
Main Audio
Sub Audio
◃ ▹ Key
A
B
Monitor Out
C

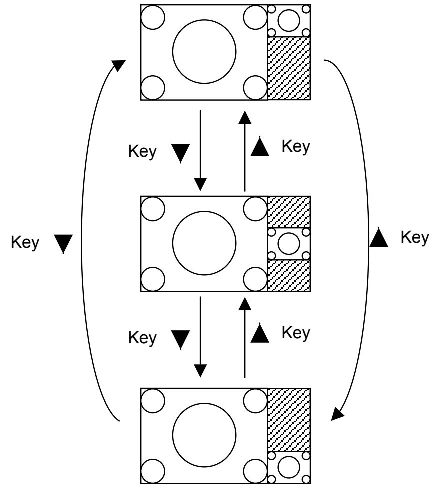
(Note)
At the time of reservation videotape recording, the picture and sound of ANT is outputted from Monitor out.
When Macrovision signal is included in the ANT Digital channel, monitor out is no picture and no audio.

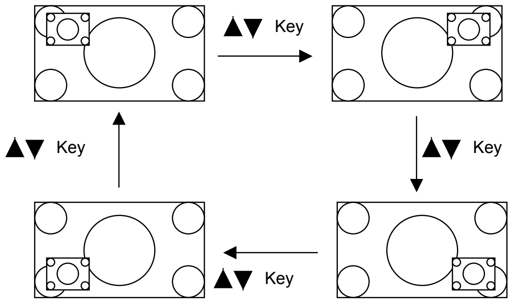
Main Audio Select

Input Mode				Monitor Out: TV out			
				S-Video	Video	L/R	HiFi
ANT (AIR or CABLE)	Digital Channel	No Macrovision	S-Video	YES ANT	YES ANT	YES ANT	YES ANT
		Macrovision	S-Video	-	-	-	YES ANT
	Analog Channel		Video	-	YES ANT	YES ANT	YES ANT
Input_1	HDMI_1		YP_BP_R	YES ANT Digital only	YES ANT	YES ANT	YES ANT
	S-Video_1						
	Video_1						
Input_2	HDMI_2		YP_BP_R				
	S-Video_2						
	Video_2						
Input_3	YP_BP_R_3						
	Video_3						
Input_4	YP_BP_R_4						
	Video_4						
Input_5 Side	HDMI_5		YP_BP_R				
	YP_BP_R_5						
	Video_5						

When Macrovision signal is included in the ANT Digital channel, monitor out is no picture and no audio.

(4) PIP Position Operation


Key ▼
▲ Key
Key ▼
▲ Key
Key ▼
▲ Key

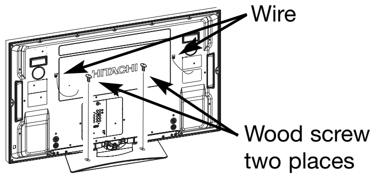

▲▼ Key
▲▼ Key
▲▼ Key
▲▼ Key

(Note)
The Sub screen position of POP Mode moves up and down by the upper and lower sides Key.
A Sub screen position of PIP Mode moves clockwise by the upper and lower sides Key.

To take measures to prevent the Plasma Display from tipping over and prevent possible injury it is important to mount the unit in a stable and flat surface.

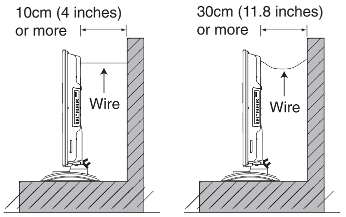
Securing to a table-top

1. Using wood screws (two) fasten the set to the clamping screw holes on the rear of the Plasma Display stand as shown below.
2. Using commercially available wood screws, secure the set firmly in position.



Securing to a Wall

1. Keep the Plasma television 4 inches away from the wall except when mounted using the wall mount bracket.
2. Secure the television to the wall as shown in fig. (a) or (b).



(a) Power Swivel NOT USED

(b) Power Swivel USED

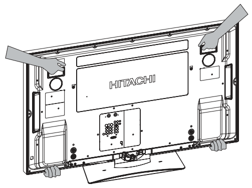
	A	B
42"	4 in.	12 in.
	10 cm	30 cm
55"	4 in.	16 in.
	10 cm	39 cm

NOTES:

1. *Do not block the ventilation holes of the Plasma Display monitor. Blocking the ventilation holes might cause fire or defect.*
2. *In case of an abnormal symptom, unplug the AC cord.*
3. *If you purchased the wall mount bracket option, please ask for professional installer. Do not install by yourself.*
4. *If the Power Swivel feature will not be used, the Plasma television should be secured to the wall as shown in fig. (a).*
5. *If the Power Swivel feature will be used, the Plasma television should be secured to the wall as shown in fig. (b). The wires need to be long enough to allow the television to turn 30˚ to the left and right.*

Caution when moving the main unit

As this product is heavy, whenever it is moved, two people are required to transport it safely. Whenever the unit is moved it should be lifted forward using the top and base on both sides of the Display Monitor for stability. When moving the Display Monitor, lift the handles and the bottom frame as shown below. Do not grab the speakers or the back cover when lifting.

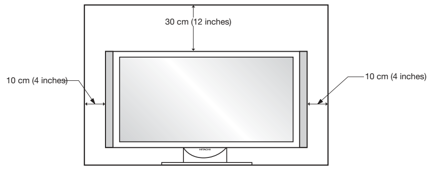


ANTENNA

Unless your Plasma Television is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, an indoor antenna may be sufficient.

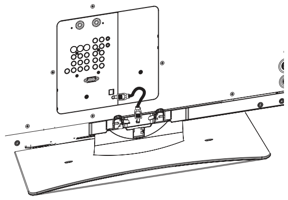
LOCATION

Select an area where sunlight or bright indoor illumination will not fall directly on the picture screen. Also, be sure that the location selected allows a free flow of air to and from the perforated back cover of the set. In order to prevent an internal temperature increase, maintain a space of 10 cm (4 inches) from the sides/back of the monitor, and 30 cm (12 inches) from the top of the television to the wall. To avoid cabinet warping, cabinet color changes, and increased chance of set failure, do not place the TV where temperatures can become excessively hot, for example, in direct sunlight or near a heating appliance, etc.



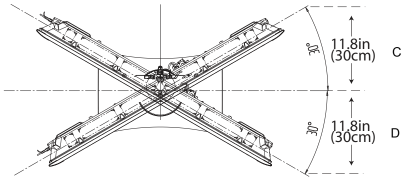
CONNECT POWER SWIVEL CABLE

Connect one end of cable (Arrow mark facing left) to the swivel slot of the Plasma Rear Panel. Connect the other end (Arrow mark facing front)to the swivel slot of the Table Top Stand.



TURNING RADIUS

The maximum turning radius is 30˚ (left and right). Do not place any objects on the path of the monitor when using the power swivel feature.



	C	D
42"	12 in.	12 in.
	30 cm	30 cm
55"	15.26 in.	16.46 in.
	38.77 cm	41.8 cm

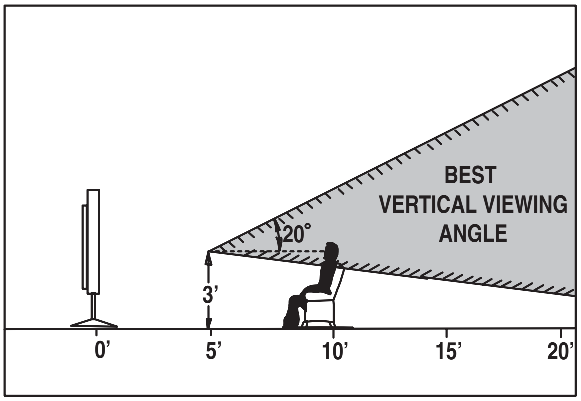
TABLE OF CONTENTS

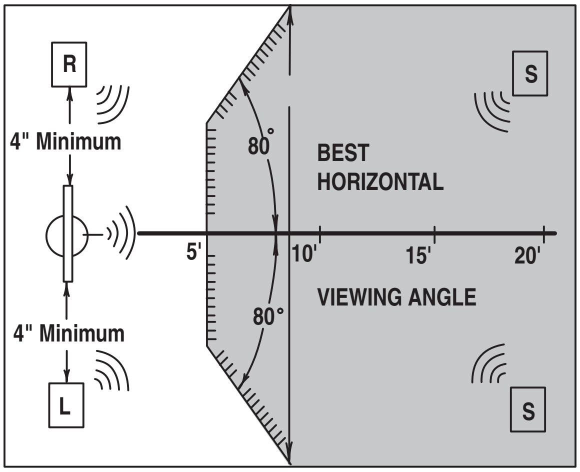
VIEWING

The best picture is seen by sitting directly in front of the TV and about 10 to 18 feet from the screen.

During daylight hours, reflections from outside light may appear on the screen. If so, drapes or screens can be used to reduce the reflection or the TV can be located in a different section of the room.

If the TV's audio output will be connected to a Hi-Fi system's external speakers, the best audio performance will be obtained by placing the speakers equidistant from each side of the receiver cabinet and as close as possible to the height of the picture screen center. For best stereo separation, place the external speakers at least four feet from the side of the TV, place the surround speakers to the side or behind the viewing area. Differences in room sizes and acoustical environments will require some experimentation with speaker placement for best performance.

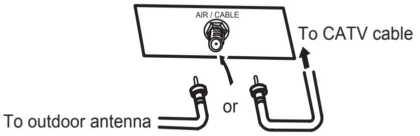

BEST
VERTICAL VIEWING
ANGLE
20°
3'
0'
5'
10'
15'
20'


R
S
4" Minimum
80°
BEST
HORIZONTAL
5'
10'
15'
20'
VIEWING ANGLE
80°
4" Minimum
L
S

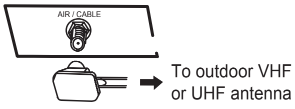
ANTENNA CONNECTIONS TO REAR JACK PANEL

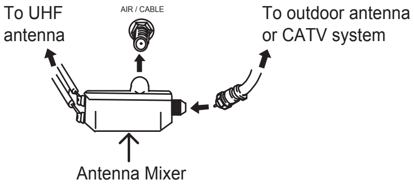
VHF (75-Ohm) antenna/CATV (Cable TV)
When using a 75-Ohm coaxial cable system, connect **CATV** coaxial cable to the AIR/CABLE (75-Ohm) terminal. Or if you have an antenna, connect the coaxial cable to the same AIR/CABLE terminal.

VHF (300-Ohm) antenna/UHF antenna
When using a 300-Ohm twin lead from an outdoor antenna, connect the **VHF** or **UHF** antenna leads to screws of the **VHF** or **UHF** adapter. Plug the adapter into the antenna terminal on the TV.


AIR / CABLE
To CATV cable
or
To outdoor antenna

When both VHF and UHF antennas are connected
Attach an optional antenna cable mixer to the TV antenna terminal, and connect the cables to the antenna mixer. Consult your dealer or service store for the antenna mixer.


AIR / CABLE
To outdoor VHF
or UHF antenna

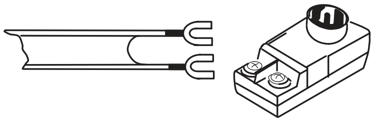

To UHF
antenna
AIR / CABLE
To outdoor antenna
or CATV system
Antenna Mixer

NOTE: *Connecting a 300-Ohm twin lead connector may cause interference. Using a 75-Ohm coaxial cable is recommended.*

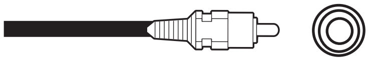
Hook-up Cables and Connectors

Most video/audio connections between components can be made with shielded video and audio cables that have phono connectors. For best performance, video cables should use 75-Ohm coaxial shielded wire. Cables can be purchased from most stores that sell audio/video products. Below are illustrations and names of common connectors. Before purchasing any cables, be sure of the output and input connector types required by the various components and the length of each cable.

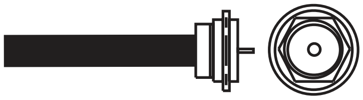
300-Ohm Twin Lead Connector
This outdoor antenna cable must be connected to an antenna adapter (300-Ohm to 75-Ohm).



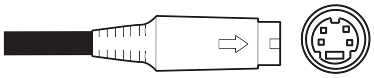
Phono Connector
Used on all standard video and audio cables which connect to inputs and outputs located on the television's rear jack panel and front control panel.



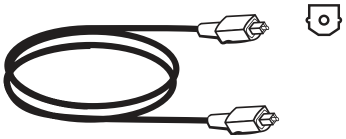
"F" Type 75-Ohm Coaxial Antenna Connector
For connecting RF signals (antenna or cable TV) to the antenna jack on the television.



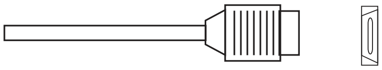
S-Video (Super Video) Connector
This connector is used on camcorders, VCRs and laser-disc players with an S-Video feature in place of the standard video cable to produce a high quality picture.



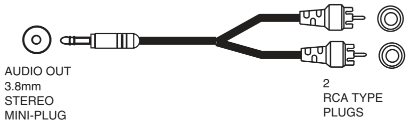
Optical Cable
This cable is used to connect to an audio amplifier with an Optical Audio In jack. Use this cable for the best sound quality.



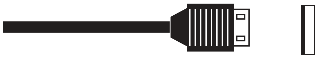
HDMI Cable
This cable is used to connect your external devices such as Set-Top-Boxes or DVD players equipped with an **HDMI** output connection to the TV's **HDMI** input.



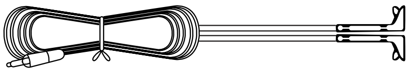
Stereo Cable (3.8mm plug to 3.5mm plug)
Used on all standard video and audio cable which connect to inputs and outputs located on the rear jack panel and front control panel.



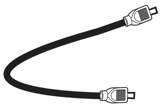
USB Cable (HDT & HDX only)
This cable is used to connect your digital camera to the Photo Input in the side of the Plasma television.



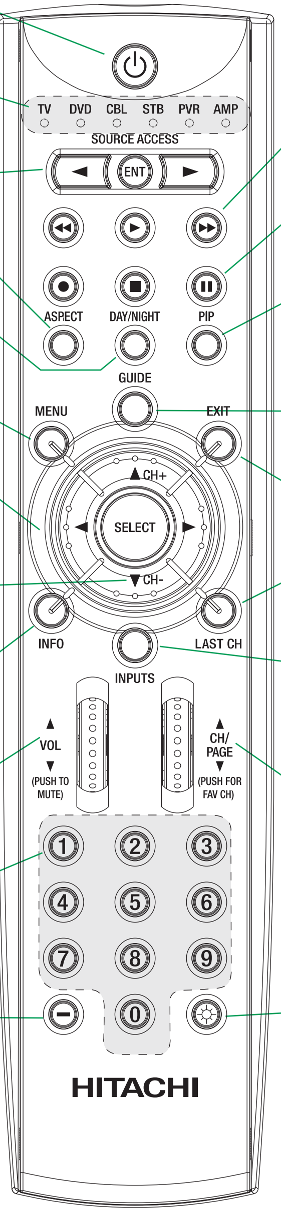
IR Mouse Cable (Provided) (HDT & HDX only)
Connect the IR Mouse to the IR output of your Plasma Television when A/V Network is used. You must place the IR mouse in front of the corresponding IR window of your cable box and VCR. This connection allows your TV to control your cable box and VCR.



Power Swivel Cable (Provided) (HDT & HDX only)
This cable is used to connect the swivel stand to the rear panel of the Plasma Television.



42HDT79 and 42HDX99 Models Only



POWER BUTTON
(TV, DVD, CBL, STB, PVR/VCR, AMP/CD)
Turns the selected device on and off.

MODE INDICATOR
Turns on or blinks to show remote control mode when the SOURCE ACCESS buttons are pressed.

SOURCE ACCESS BUTTONS
(TV, DVD, CBL, STB, PVR/VCR, AMP/CD)
Changes the mode of the Universal Remote Control to control the device selected.

ASPECT BUTTON
(TV)
Changes the aspect ratio of the TV.

DAY/NIGHT
(TV)
Toggles picture mode settings between DAY and NIGHT mode.

MENU BUTTON
(TV, DVD, CBL, STB, PVR/VCR)
Accesses the OSD menu system.

CURSOR PAD/SELECT BUTTON
(TV, DVD, CBL, STB, PVR/VCR)
The Cursor Pad is used as a cursor to navigate through the OSD and INPUT menu systems. The Select button is used to Select/Activate highlighted menu items.

CURSOR UP & DOWN /CH + & CH - BUTTON
(TV, CBL, STB, VCR)
The CH+ or CH- is used to change channels up or down. The Cursor UP or DOWN to navigate through the OSD and INPUT menu systems.

INFO BUTTON
(TV, STB, CBL, PVR)
Displays various information on the screen, such as channel information.

VOLUME WHEEL
(TV, AMP/CD)
Scroll up and down to adjust the audio level of your TV. Push down on the wheel to mute.

NUMERIC BUTTONS
(TV, DVD, CBL, STB, PVR/VCR, AMP/CD)
Used to manually enter the TV channel, and used for numeric entry when navigating through the OSD, INPUTS, and AV NET menu systems.

(-) BUTTON
(TV,STB)
The (-) button is used when the remote is in Set-Top-Box (STB) mode or when the TV uses a digital input.

DVD/VCR CONTROL BUTTONS
(DVD, PVR/VCR, AMP/CD)
Controls the functions of your VCR, DVD and audio devices.

PAUSE BUTTON
(TV,PVR/VCR, DVD, AMP/CD)
Press to show and change the Freeze mode of the TV. Also used to pause other devices when the remote is in DVD, PVR/VCR, or AMP/CD mode.

PIP CONTROL BUTTONS
(TV)
Press to show and change the Picture-in-Picture mode.

GUIDE BUTTON
(TV, STB, CBL, PVR)
Accesses the TV Guide On Screen™ system (see page 54) of the TV or the program guide of other devices.

EXIT BUTTON
(TV, CBL, STB, PVR/VCR)
Exits out of the OSD, INPUTS or AV NET menu systems if their menu is displayed.

LAST CHANNEL BUTTON
(TV, CBL, STB, PVR)
Switches between the current and last channel viewed.

INPUTS BUTTON
(TV, AMP)
Accesses the INPUTS menu system.

CHANNEL WHEEL
(TV, CBL, STB, PVR/VCR, AMP/CD)
Scroll up or down to change channel. Push down on the wheel to access (FAV) Favorite Channel mode. (Favorite channel is only available for TV mode.)

LIGHT BUTTON
(TV, CBL, STB, PVR)
Press to use the back light feature. Can also be used to change backlight mode.

In addition to controlling all of the functions on your HITACHI Plasma TV, the remote control is designed to operate different types of devices, such as, DVD Players, Cable Boxes (CBL), set-top-boxes, satellite receivers, PVRs/VCRs and audio devices. The remote control must be programmed to control the chosen device. Refer to Instruction Book for detailed programming instructions.

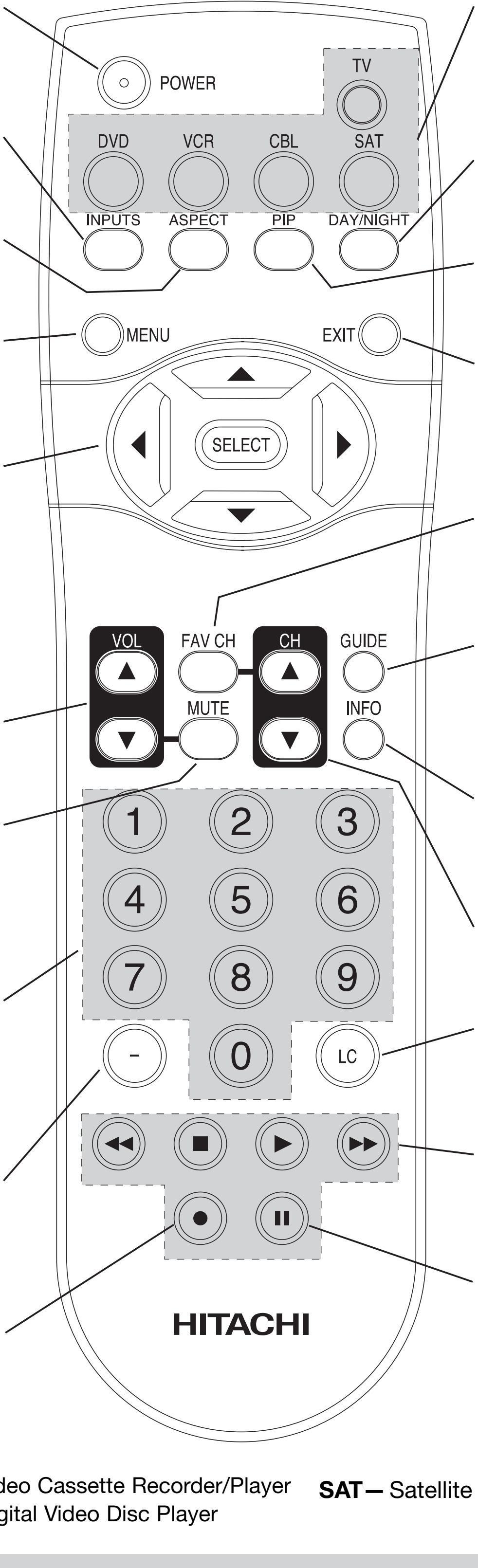
LEGEND
TV - Television
DVD - Digital Video Disc Player
CBL - Cable Box
STB - Set-Top-Box/Satellite Receiver
PVR - Personal Video Recorder
VCR - Video Cassette Recorder/Player
AMP/CD - Amplifier/Compact Disc Player, Audio Devices

NOTES:
1. VCR precode is included in the PVR mode.
2. CD precode is included in the AMP mode.
3. Pressing any buttons will illuminate the backlight for 4 seconds while in Automatic mode (Default).

QUICK REFERENCE REMOTE CONTROL

In addition to controlling all of the functions on your HITACHI Plasma TV, the new remote control is designed to operate different types of devices, such as, DVD Players, CBL (Cable Boxes), set-top-boxes, satellite receivers, and VCRs. The remote control must be programmed to control the chosen device. Please see pages of the OWNERS GUIDE for a complete description of all features and programming of the Remote Control.

42HDS69 Model Only



POWER BUTTON (TV, CBL, VCR, DVD, SAT)
Turns the selected device on and off.

INPUTS BUTTON (TV)
Accesses the INPUTS menu system.

ASPECT BUTTON (TV)
Changes the aspect ratio while watching TV.

MENU BUTTON (CBL, DVD, SAT, TV)
Accesses the OSD menu system.

CURSOR/SELECT BUTTONS (TV, DVD, CBL, SAT)
The CURSOR buttons are used to navigate the cursor through the OSD and INPUTS menu systems, and the SELECT button is used to Select/Activate the highlighted menu item.

VOLUME BUTTONS (TV)
Adjusts the audio level of your TV.

MUTE BUTTON (TV)
Reduces the audio level to 50% if pressed once, and to complete mute if pressed twice. Press it a third time to restore audio level.

NUMERIC BUTTONS (TV, DVD, CBL, SAT, VCR)
Used to manually enter the TV channel, and used for numeric entry when navigating through the OSD menu system.

(-) BUTTON (TV, SAT)
The (-) button is used when the remote is in Set-Top-Box (STB) mode or when the TV uses a digital input.

RECORD BUTTON (VCR)
Press twice (2 times) to record programs.

SOURCE ACCESS BUTTONS (TV, DVD, VCR, CBL, SAT)
Changes the mode of the Universal Remote Control to control the device selected.

DAY/NIGHT BUTTON (TV)
Select picture mode settings between DAY and NIGHT mode.

PIP BUTTON (TV)
Press to show and change the Picture-in-Picture mode.

EXIT BUTTON (TV, CBL, SAT)
Exits out of the OSD or INPUTS menu systems if their menu is displayed.

FAVORITE CHANNEL (FAV CH) button (TV)
Press to enter/access Favorite Channel (FAV) mode.

GUIDE BUTTON (SAT, CBL)
Accesses the program guide of other devices.

INFO BUTTON (TV, CBL, SAT)
Displays various information on the screen.

CHANNEL BUTTONS (TV, CBL, SAT, VCR)
Changes the channel.

LAST CHANNEL (LC) BUTTON (TV, CBL, SAT)
Switches between the current and last channel viewed.

DVD/VCR CONTROL BUTTONS (DVD, VCR)
Controls the precode functions of your VCR and DVD.

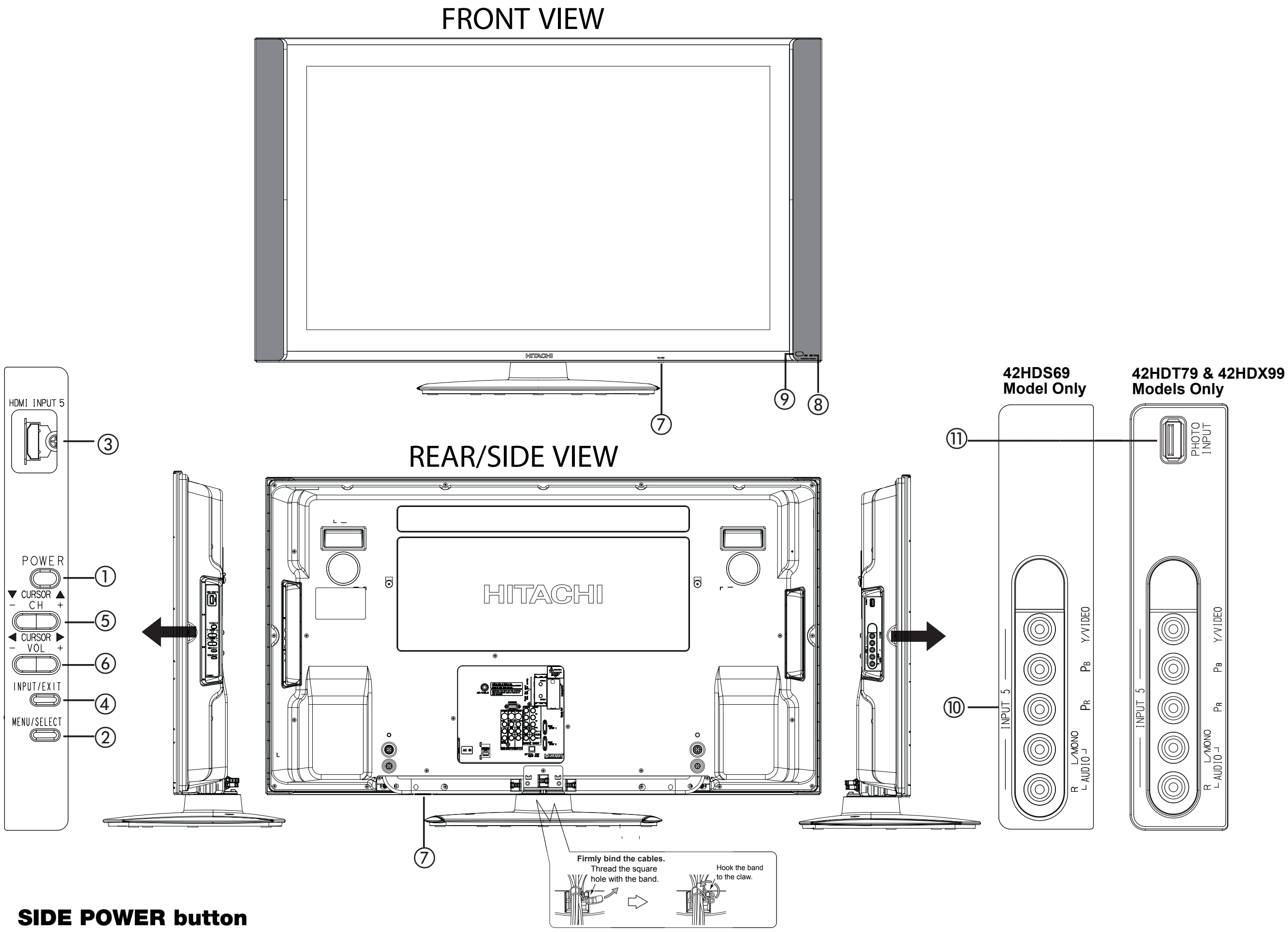
PAUSE BUTTON (TV, VCR, DVD)
Press to show and change the Freeze mode of the TV or pause other devices.

LEGEND

TV — Television	**VCR —** Video Cassette Recorder/Player	**SAT —** Satellite Receiver
CBL — Cable Box	**DVD —** Digital Video Disc Player	

NOTES: *1. The TV's remote control sensor is located on the right bottom portion of the TV screen. To control TV functions, please point the remote control directly at the remote control sensor for best results.*

Front/Rear/Side Panel Controls


FRONT VIEW
REAR/SIDE VIEW
HDMI INPUT 5
POWER
▼ CURSOR ▲
− CH +
◄ CURSOR ►
− VOL +
INPUT/EXIT
MENU/SELECT
③
①
⑤
⑥
④
②
⑦
⑨
⑧
⑪
⑩
HITACHI
42HDS69
Model Only
42HDT79 & 42HDX99
Models Only
PHOTO INPUT
Y/VIDEO
PB
PR
L/MONO
R AUDIO
INPUT 5
Firmly bind the cables.
Thread the square hole with the band.
Hook the band to the claw.

① **SIDE POWER button**
Press this button to turn the Plasma Television ON/OFF. It can also be turned ON/OFF by remote control. The "MAIN POWER" button must be at stand-by mode.

② **MENU/SELECT button**
This button allows you to enter the MENU, making it possible to set TV features to your preference without using the remote. This button also serves as the SELECT button when in MENU mode.

③ **SIDE HDMI INPUT (5)**
Use the side HDMI input for extrenal devices such as Set-Top-Boxes or DVD players equipped with an HDMI output connection (see page 16 for reference).

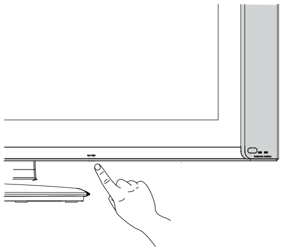
④ **INPUT/EXIT button**
Press this button to access the INPUT menu. Press again to exit the MENU mode.

⑤ **CHANNEL selector**
Press these buttons until the desired channel appears in the top right corner of the TV screen. These buttons also serve as the cursor down (▼) and up (▲) buttons when in MENU mode.

⑥ **VOLUME level**
Press these buttons to adjust the sound level. The volume level will be displayed on the TV screen. These buttons also serve as the cursor left (◄) and right (►) buttons when in MENU mode.

NOTE: *The Rear View of the 55" model is slightly different from the 42" models. One of the differences are the handles that are only present on the 42" models.*

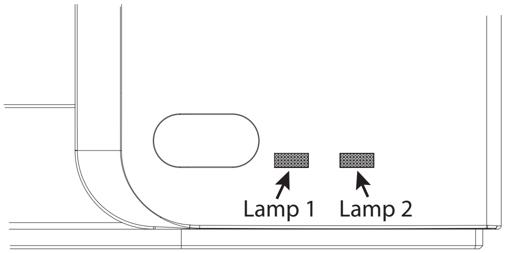
⑦ **POWER button**
Television MAIN POWER button
This power button is for the complete system, and must be turned ON/OFF manually. It is recommended to leave the "MAIN POWER" to ON condition (lights red) for stand-by mode.



The Main Power button is located on the broadside bottom, under the label "MAIN POWER".

NOTE: *When the "MAIN POWER" button is set to OFF or the TV is unplugged, the clock will stop and may eventually reset itself.*

⑧ **POWER light indicator**
To turn the TV ON, press the main power switch located on the lower right side of the TV. A red stand-by indicator lamp located on the lower right corner of the front bezel will illuminate. The Plasma TV is now ready for remote ON/OFF operation.



Indicating Lamp		Power Status	Operating
Lamp 1	Lamp 2		
Off	Off	OFF.	When the main power switch is set to Off.
Lights Red	Off	OFF. (Stand-by)	When the main power switch on the TV is ON.
Off	Blinking Blue	OFF. (Turning ON)	TV MAIN POWER is ON ; but no picture is shown.
Off	Lights Blue	On	TV MAIN POWER is ON ; picture is shown.
Lights Orange	Off	Off (Power Saving)	TV MAIN POWER is ON with no signal input except antenna (no sync. signal).

⑨ **REMOTE CONTROL sensor**
Point your remote at this area when selecting channels, adjusting volume, etc.
(Only HDT & HDX models)

⑨ **LEARNING AV NET sensor**
Point your equipment's remote control at this area while using the AV NET Learning Wizard.

⑩ **SIDE INPUT JACKS (for INPUT: 5)**
INPUT 5 provide Y-PBPR jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use composite video signal for both inputs.

⑪ **PHOTO INPUT**
Insert USB cable from your Digital Camera, USB memory or memory card USB drive to view your digital still pictures (see Owners Guide).
(Only HDT & HDX models)

NOTE: *1. Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's PB input and the components R-Y output to the TV's PR input.*

2. Your component outputs may be labeled Y-CBCR. In this case, connect the component CB output to the TV's PB input and the component CR output to the TV's PR input.

*3. It may be necessary to adjust **TINT** to obtain optimum picture quality when using the Y-PBPR inputs (see page 37).*

*4. **INPUT 3**, **INPUT 4** and INPUT 5 (Y/VIDEO) can be used for composite video and component video input.*

NOTES: *1. Your HITACHI Plasma TV will appear to be turned OFF (lights orange) if there is no video input when INPUT : 1, 2, 3, 4 and 5. Check the Power Light to make sure the TV is turned off or in Stand-by mode (lights red) when not in use.*

2. Remote Control can not turn ON/OFF the "MAIN POWER" of the TV.

REAR PANEL CONNECTIONS

① **Antenna Input**
The remote control allows you to switch between two separate 75-Ohm RF antenna inputs, CABLE and AIR. CABLE input can be displayed as a main picture or sub-picture. AIR can only be displayed as a main picture (AIR cannot be displayed as a sub-picture).

② **Audio/Video Inputs 1, 2, 3 and 4**
By using the INPUTS button, the CURSOR PAD (▲ and ▼), and the SELECT button or CURSOR PAD ▶ of the remote control, you can select each video source. Use the audio and video inputs to connect external devices, such as VCRs, camcorders, laserdisc players, DVD players etc. (if you have mono sound, insert the audio cable into the left audio jack).

③ **MONITOR OUT & HI-FI AUDIO OUT**
These jacks provide fixed and variable audio and video signals (CABLE/AIR, INPUT 1, 2 and 5) which are used for recording. Use the S-VIDEO Output for high quality video output. Component signal to Input 1 and 2, and HDMI inputs will not have monitor output.

④ **Optical Out (Digital Audio)**
This jack provides Digital Audio Output for your audio device that is Dolby® Digital and PCM compatible, such as an audio amplifier.

NOTE: **Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.*

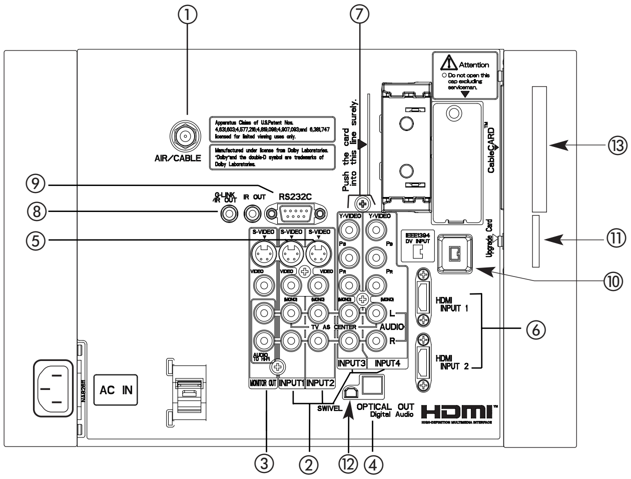
⑤ **S-VIDEO Inputs 1 and 2**
Inputs 1 and 2 provide S-VIDEO (Super Video) jacks for connecting equipment with S-VIDEO output capability.

NOTE: *1. You may use VIDEO or S-VIDEO inputs to connect to INPUT 1 and 2, but only one of these inputs may be used at a time.*
2. S-VIDEO output may be used for recording, only when the input is of S-VIDEO type.

⑥ **HDMI1&2 (High Definition Multimedia Interface) (INPUT 1&2)**
ABOUT HDMI – **HDMI** is the next-generation all digital interface for consumer electronics. **HDMI** enables the secure distribution of uncompressed high-definition video and multi-channel audio in a single cable. Because digital television (DTV) signals remain in digital format, **HDMI** assures that pristine high-definition images retain the highest video quality from the source all the way to your television screen.

Use the **HDMI** input for your external devices such as Set-Top-Boxes or DVD players equipped with an **HDMI** output connection.

***HDMI**, the **HDMI** logo and High-Definition Multimedia Interface are trademarks or registered trademarks of **HDMI** Licensing LLC.*


①
⑦
AIR/CABLE
Apparatus Claims of U.S.Patent Nos. 4,631,603;4,577,216;4,819,098;4,907,093;and 6,381,747 licensed for limited viewing uses only.
Manufactured under license from Dolby Laboratories. "Dolby"and the double-D symbol are trademarks of Dolby Laboratories.
Push the card into this line surely.
Attention
Do not open this cap excluding serviceman.
CableCARD™
⑬
⑨
⑧
⑤
G-LINK /IR OUT
IR OUT
RS232C
S-VIDEO
VIDEO
(MONO)
AUDIO TO HI-FI
TV AS CENTER
Y/VIDEO
PB
PR
L
AUDIO
R
IEEE1394 DV INPUT
Upgrade Card
⑪
⑩
HDMI INPUT 1
HDMI INPUT 2
⑥
AC IN
MONITOR OUT
INPUT1
INPUT2
INPUT3
INPUT4
SWIVEL
OPTICAL OUT Digital Audio
HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE
③
②
⑫
④

NOTE: *1. The **HDMI** input is not intended for use with personal computers.*
*2. Only DTV formats such as **1080I, 720P, 480I** and **480P** are available for **HDMI** input.*

⑦ **Component: Y-PBPR Inputs**
INPUTS 3 and **4** provide Y-PBPR jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use composite video signal for both inputs.

NOTE: *1. Do not connect composite **VIDEO** and **S-VIDEO** to **INPUT 1 or 2** at the same time. **S-VIDEO** has priority over **VIDEO** input.*
2. Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV’s PB input and the components R-Y output to the TV’s PR input.
3. Your component outputs may be labeled Y-CBCR. In this case, connect the component CB output to the TV’s PB input and the component CR output to the TV’s PR input.
*4. It may be necessary to adjust **TINT** to obtain optimum picture quality when using the Y-PBPR inputs (see page **Owners Guide**).*
*5. To ensure no copyright infringement, the **MONITOR OUT** output will be abnormal, when using the Y-PBPR jacks and HDMI Input.*
*6. **INPUT 3** , **4** and **5** (Y/VIDEO) can be used for composite video and component video input.*

⑧ **IR Blaster**
This jack provides IR output to your external components (VCR, Cable box, DVD player, etc.). With this connection, your external components can automatically be controlled by the A/V network feature. This connection will allow you to control the external components with your Plasma Television’s remote control in TV mode.
(Only HDT & HDX models)

⑨ **For Service Use Only**
Do not connect anything to this terminal.
Specifically for Service use only.

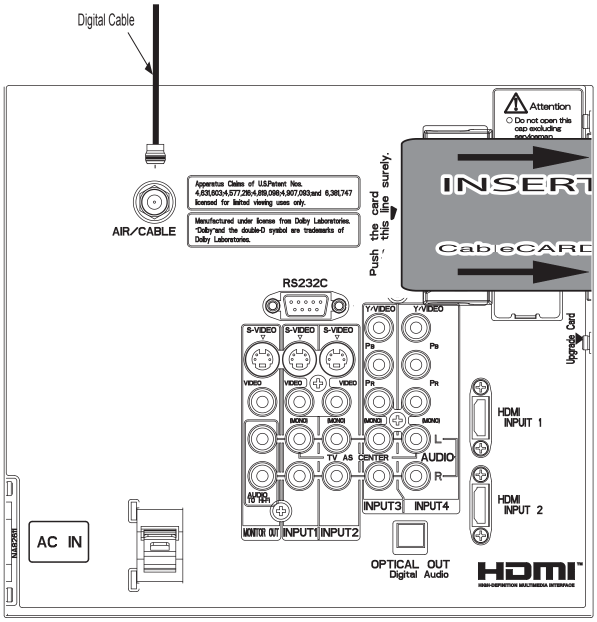
⑩ **IEEE1394 (DV INPUT)**
These jacks provide a digital interface for your external digital devices, such as a Digital VCR (D-VHS), Set-Top-Box or Digital Camcorder by means of a single cable (see page 19). When using IEEE1394 connections, you enable video and audio digital data exchange between a compatible device. This connection also enables you to control basic equipment functions (such as VCR play, rewind, fast forward, stop, etc.) from your TV On-Screen Display.(Only HDT & HDX models)

⑪ **Upgrade Card**
This card slot is for future software upgrades. Hitachi will notify you if a software upgrade is required for your TV. In order to receive written notification, please complete and return your warranty card.

⑫ **To Power Swivel Connector**
Connects to the Power Swivel Table Top Stand. (Only HDT & HDX models)

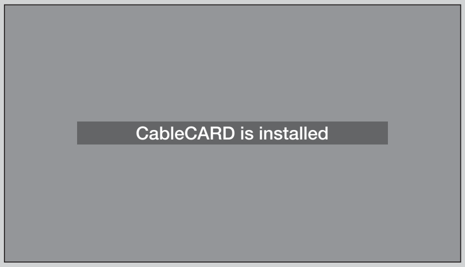
⑬ **CableCARD Slot**
This slot is for the CableCARD that will be provided by your local cable operator to gain access to chosen cable channels. The CableCARD will allow you to tune digital and high definition cable channels. Please call your local cable operator if this service is available before requesting a CableCARD (also known as Point of Deployment (POD) module).

1. Connect a coaxial cable to cable terminal of the Rear Panel Jacks.
2. Insert the CableCARD into the slot (Top of card should be facing towards you as shown below).

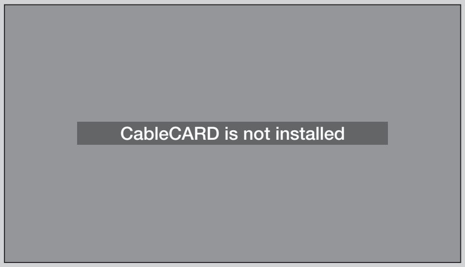

Digital Cable
AIR/CABLE
Attention
Push the card this line surely.
INSERT
CableCARD
RS232C
S-VIDEO
VIDEO
Y-VIDEO
PB
PR
(MONO)
TV AS CENTER
AUDIO
L
R
AUDIO TO HIFI
MONITOR OUT
INPUT1
INPUT2
INPUT3
INPUT4
HDMI INPUT 1
HDMI INPUT 2
Upgrade Card
AC IN
OPTICAL OUT Digital Audio
HDMI

NOTE: *1. A digital cable subscription is required.*
2. Do not insert a PCMCIA card into the CableCARD slot.

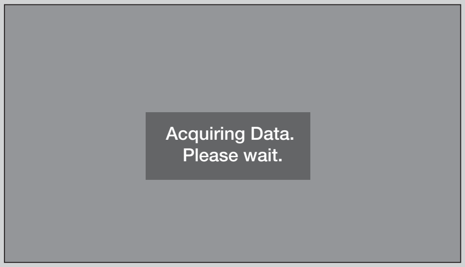
If the CableCARD is properly installed or removed, the TV will display the following respective screens.

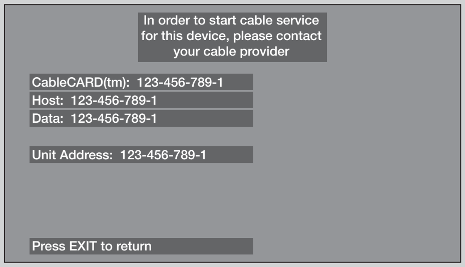

CableCARD is installed

OR


CableCARD is not installed

After the CableCARD is installed, wait until the second screen below appears. The third screen below will appear if a channel is not authorized for viewing. Press the **EXIT** button to exit the second screen.


Acquiring Data.
Please wait.

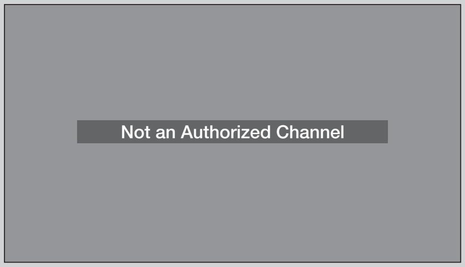

In order to start cable service for this device, please contact your cable provider

CableCARD(tm): 123-456-789-1
Host: 123-456-789-1
Data: 123-456-789-1

Unit Address: 123-456-789-1

Press EXIT to return

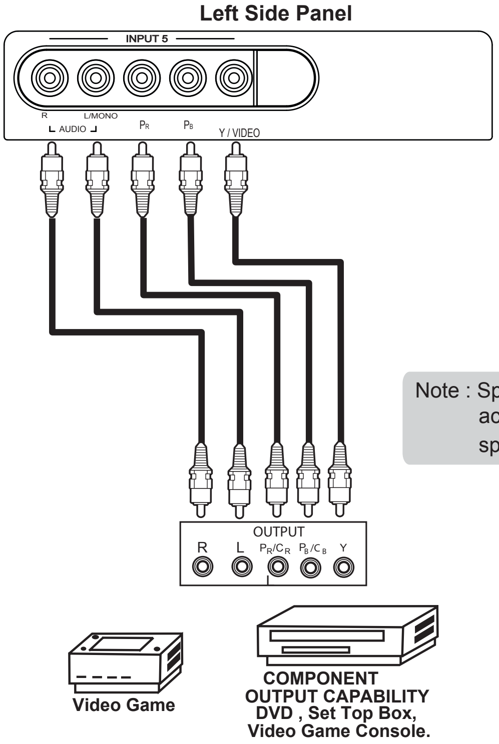
OR


Not an Authorized Channel

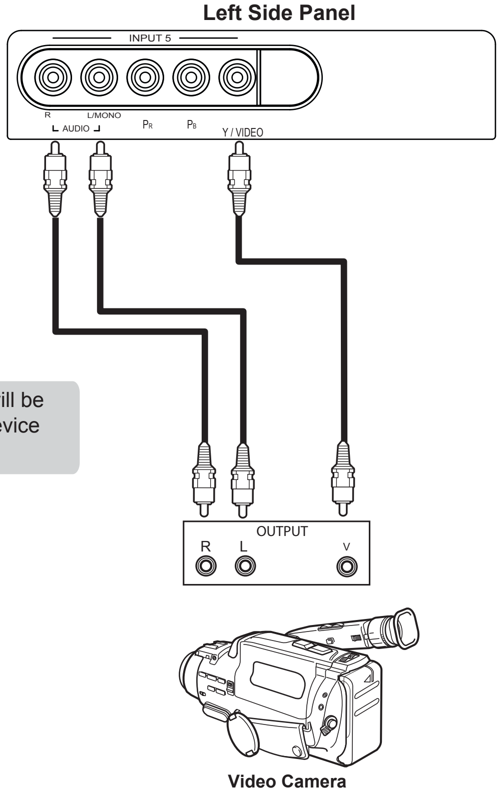
Please take note of all information on the screen (you will provide this information to your cable operator). Call your cable operator and give them the information from the card to start your cable service.

Connecting External Video Sources

The LEFT SIDE panel jacks are provided as a convenience to allow you to easily connect a camcorder , DVD, Video Game or VCR as shown in the following examples:


Left Side Panel
INPUT 5
R
L/MONO
AUDIO
PR
PB
Y / VIDEO
OUTPUT
R
L
PR/CR
PB/CB
Y
Video Game
COMPONENT
OUTPUT CAPABILITY
DVD , Set Top Box,
Video Game Console.

Note : Special device cables will be according to the own device specifications.


Left Side Panel
INPUT 5
R
L/MONO
AUDIO
PR
PB
Y / VIDEO
OUTPUT
R
L
V
Video Camera

NOTE: *1. Completely insert connection cord plugs when connecting to left side panel jacks. If you do not, the played back picture may be abnormal.*

Connecting External Video Sources

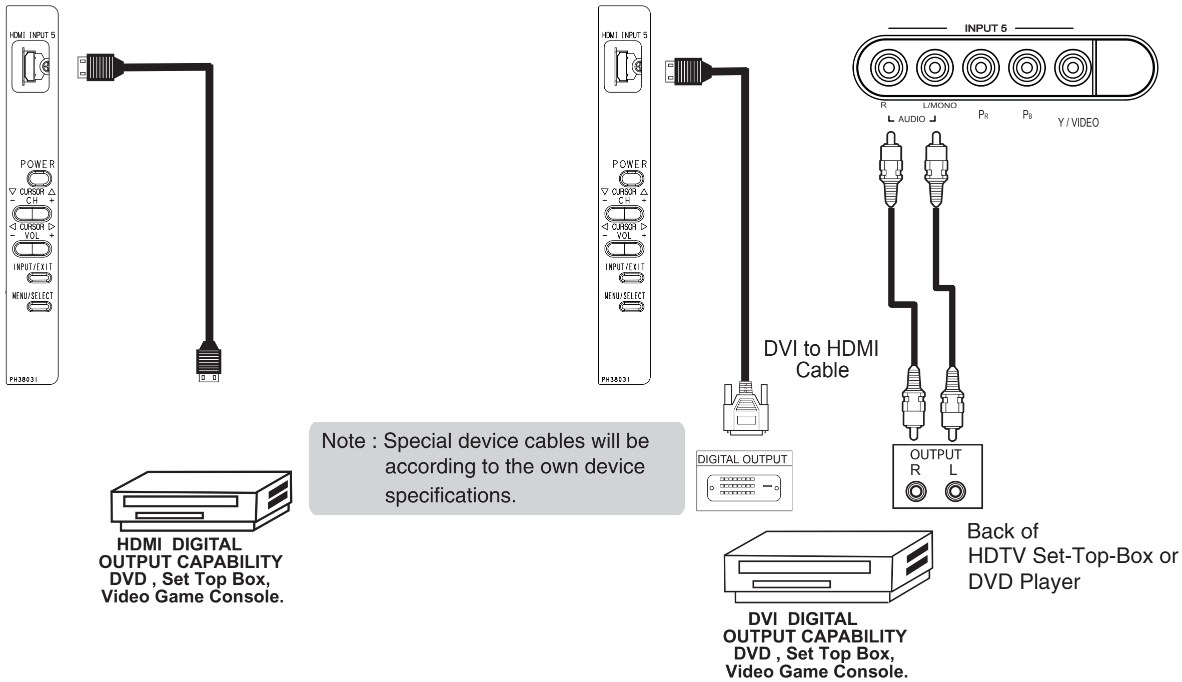
The RIGHT SIDE panel jacks are provided as a convenience to allow you to easily connect HDMI or DVI signals from a DVD, Set Top Box , Video Game as shown in the following examples (When connecting DVI signal it will need to connect the audio output into the Left Side Input jacks) :

A) Connecting HDMI signal.

Right Side Panel

B) Connecting DVI signal.

Right Side Panel **Left Side Panel**


HDMI INPUT 5
POWER
CURSOR
CH
CURSOR
VOL
INPUT/EXIT
MENU/SELECT
PH38031
HDMI DIGITAL
OUTPUT CAPABILITY
DVD , Set Top Box,
Video Game Console.
INPUT 5
R
L/MONO
AUDIO
PR
PB
Y / VIDEO
DVI to HDMI
Cable
DIGITAL OUTPUT
OUTPUT
R L
Back of
HDTV Set-Top-Box or
DVD Player
DVI DIGITAL
OUTPUT CAPABILITY
DVD , Set Top Box,
Video Game Console.

Note : Special device cables will be according to the own device specifications.

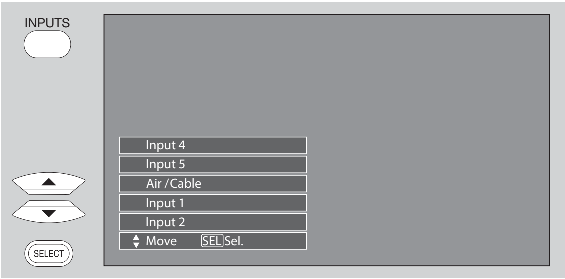
NOTE: *1. Completely insert connection cord plugs when connecting to side panel jacks. If you do not, the played back picture may be abnormal.*

The exact arrangement you use to connect the VCR, camcorder, laserdisc player, DVD player, or HDTV Set Top Box to your Plasma TV is dependent on the model and features of each component. Check the owner's manual of each component for the location of video and audio inputs and outputs.

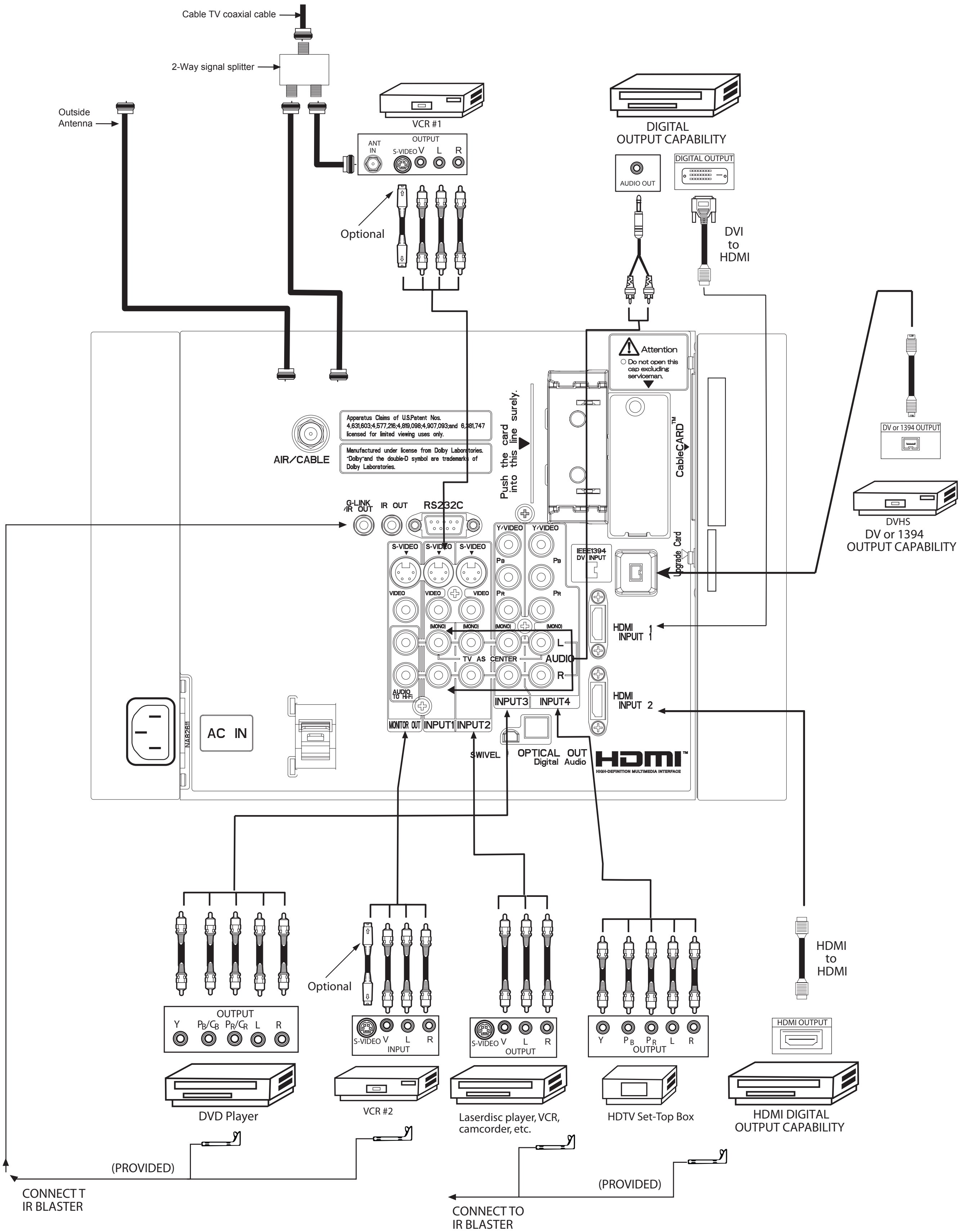
The following connection diagrams are offered as suggestions. However, you may need to modify them to accommodate your particular assortment of components and features. For best performance, video and audio cables should be made from coaxial shielded wire.

Before Operating External Video Source

Connect an external source to one of the INPUT terminals, then press the INPUTS button to show the INPUTS menu. Use the CURSOR PAD (▲ and ▼) to select the Antenna or Input of your choice. Then press the SELECT button or the CURSOR PAD ▶ to confirm your choice (see page 26).


INPUTS
SELECT
Input 4
Input 5
Air / Cable
Input 1
Input 2
Move SEL Sel.

CONNECTING EXTERNAL VIDEO SOURCES



Cable TV coaxial cable
2-Way signal splitter
Outside Antenna
VCR #1
ANT IN
OUTPUT
S-VIDEO
V
L
R
Optional
DIGITAL OUTPUT CAPABILITY
AUDIO OUT
DIGITAL OUTPUT
DVI to HDMI
Attention
○ Do not open this cap excluding serviceman.
Apparatus Claims of U.S.Patent Nos. 4,631,603;4,577,216;4,819,098;4,907,093;and 6,381,747 licensed for limited viewing uses only.
Manufactured under license from Dolby Laboratories. "Dolby"and the double-D symbol are trademarks of Dolby Laboratories.
AIR/CABLE
Push the card into this line surely.
CableCARD™
DV or 1394 OUTPUT
DVHS
DV or 1394 OUTPUT CAPABILITY
G-LINK /IR OUT
IR OUT
RS232C
S-VIDEO
VIDEO
Y/VIDEO
PB
PR
(MONO)
L
AUDIO
R
TV AS CENTER
AUDIO TO HI-FI
MONITOR OUT
INPUT1
INPUT2
INPUT3
INPUT4
IEEE1394 DV INPUT
Upgrade Card
HDMI INPUT 1
HDMI INPUT 2
AC IN
NA8261
SWIVEL
OPTICAL OUT Digital Audio
HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE
OUTPUT
Y
PB/CB
PR/CR
L
R
DVD Player
Optional
S-VIDEO
V
L
R
INPUT
VCR #2
S-VIDEO
V
L
R
OUTPUT
Laserdisc player, VCR, camcorder, etc.
Y
PB
PR
L
R
OUTPUT
HDTV Set-Top Box
HDMI to HDMI
HDMI OUTPUT
HDMI DIGITAL OUTPUT CAPABILITY
(PROVIDED)
CONNECT T IR BLASTER
(PROVIDED)
CONNECT TO IR BLASTER

NOTE: Cables are optional, except when specified.

TIPS ON REAR PANEL CONNECTIONS

- S-VIDEO, Y-P_BP_R, or HDMI connections are provided for high performance laserdisc players, VCRs etc. that have this feature. Use these connections in place of the standard video connection if your device has this feature.

- If your device has only one audio output (mono sound), connect it to the left audio jack on (L/(MONO)) the Rear Panel.

- Refer to the operating guide of your other electronic equipment for additional information on connecting your hook-up cables.

- A single VCR can be used for VCR #1 and VCR #2, but note that a VCR cannot record its own video or line output (INPUT: 1 in the example on page 14). Refer to your VCR operating guide for more information on line input-output connections.

- Connect only 1 component (VCR, DVD player, camcorder, etc.) to each input jack.

- COMPONENT: Y-P_BP_R (Input 3, 4 & 5) connections are provided for high performance components, such as DVD players and set-top-boxes. Use these connections in place of the standard video connection if your device has this feature.

- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's P_B input and the components R-Y output to the TV's P_R input.

- Your component outputs may be labeled Y-C_BC_R. In this case, connect the components C_B output to the TV's P_B input and the components C_R output to the TV's P_R input.

- It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-P_BP_R inputs. (See page 37)

- To ensure no copyright infringement, the MONITOR OUT output will be abnormal, when using the Y-P_BP_R, and HDMI input jacks.

- Input 1 , 2 or 5 can accept HDMI signal.
- S-VIDEO monitor output may be used for recording only when the input is of S-VIDEO type.

- When using a HDMI input from a Set-Top-Box, it is recommended to use a 1080i or 720p input signal.

INSTALLATION RECOMMENDATION:

1. Video signals fed through a VCR may be affected by copyright protection systems and the picture will be distorted on the television.
2. Connecting the television directly to the Audio /Video output of a Set-Top-Box will assure a more normal picture.

BASIC OPERATION

IMPORTANT NOTES

No.	Items	Notes
1	Arching sound from plasma display monitor's panel.	A buzzing sound might be heard when the plasma display monitor is turned on in a very quiet room. This is due to the plasma panel drive circuit when it is functioning. This arching sound is normal and it is not a malfunction.
2	Interference for infrared equipment.	Some infrared rays are emitted from the plasma display monitor's panel that might affect other infrared controlling equipment.
3	Bright and dark spots	High-precision technology is used to manufacture the plasma display panel; But in some cases, there are minor defects in some parts of the screen. Points that do not light, points with brightness different from that of the periphery, points with color different from that of the periphery, etc. Some pixels will always be on or always off. Please note that this is not a malfunction.
4	Picture Image (Spectrum)	When receving still picture signals, (e.g. channel number indication or clock indication) for a while, you can see image-like when the picture varied. This is not a defect.
5	Display panel surface temperature is too high	The plasma display panel is lighting the phosphors by the discharge of internal radiation. In some cases, this may cause the temperature of the panel surface to increase. Please note that this is not a malfunction. The Plasma TV surface temperature is higher than a Cathode-ray-tube.
6	Plasma Surface	The plasma panel is made from glass. Heavy shock on the front panel might damage it.
7	Transportation	When the PDP monitor is transported horizontally, the glass panel has the possibility of being broken or increasing the picture defects. At the time of transportation, horizontal style is prohibited. More-over, please treat the plasma panel with great care because of a precision apparatus. Please instruct transporters so that it should be put into the packing box at the time of shipment.(There is a possibility that breakage of the panel or defects will increase.) Rough transportation might cause damage to the panel and pixel failure.
8	Image retention	The plasma monitor illuminates phosphor to display images. The phosphor has a finite illumination life. After extended periods of illumination, the brightness of the phosphor will be degraded to such extent that stationary images would burn-in that part of the screen as grayed-out images. Tips to prevent such image retention are: - Do not display images having sharp brightness differences or hi-contrast images, such as monochrome characters and graphic patterns, for long. - Do not leave stationary images appearing for long, but try to refresh them at appropriate intervals of time, or try to move them using screen saver function. - Turn down the contrast and brightness controls.
9	Luminosity and contrast	PDP television has luminosity and low contrast compared with CRT television.
10	Granular spots	When a screen is seen at point-blank range, a random fine grain may be visible to a dark part.
11	Disturbance to video apparatus	If an apparatus (VCR, etc.) antenna line is arranged near the monitor, the image may shake, or disturbance may be received.
12	Lip Sync	There is some time lag betweeen the picture and the sound. You can see lip motion that is delayed compared to the sound.
13	About the use environment of PDP television (temperature)	Electric discharge/luminescence characteristic of the PDP panel also changes with peripheral temperature. Moreover, since there is also high power consumption value, a specified temperature environment is required.
14	Caution on prolonged storage	Storing the plasma television for a period of more than 2 to 3 months without use might cause an unstable picture when the set is turned on.
15	Operating	Operating altitude: 800 to 1114hPa (6194ft to -2484ft). Operating temperature: 41˚F to 95˚F.
16	Storage	Storage Altitude: 300 to 1114hPa (31,912 to -2484ft). Storage temperature: 5˚F to 140˚F.
17	Power ON or OFF	Frequent use of the Power ON or OFF might trigger the power protection circuit. If the TV does not turn ON, please wait a little before turning ON again.

ADJUSTMENTS TABLE OF CONTENTS

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1 ADJUSTMENT PROCEDURE START-UP

The 42HDT79 42HDS69 and 42HDX99 PDP TV sets pass through adjustment procedures during the assembly process. These adjustments must be done to assure the best performance of the PDP set for the consumer.

Also, after servicing, these same adjustments must be done. The adjustments are all made through the I^{2}C bus by changing data in the Adjustment mode menu.

Table 2 on pages 38-46 shows the complete parameter list with a brief description, signal format, the adjustment range and the initial data.

1.1 HOW TO GET TO ADJUSTMENT MODE

Chassis adjustment mode can be access by pressing the R/C keys MENU + MENU + 8 + SELECT to enter adjustment mode. For some parameters the only way to see them is by selecting the parameter number than pressed SELECT in order to see it; then DATA can be change if other parameter needs to change then press ▼ key then repeat the same procedure.

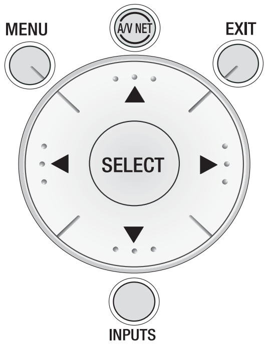
ADJUST MODE
FACT RESET
MEMORY INIT
RGB
WHITE BAL HIGH
WHITE BAL MED
WHITE BAL STD
WHITE BAL B/W

Other way to access this mode is by use JIG R/C code: (9C Hex). To escape from Adjustment Mode press “INPUT” key on Side panel or EXIT key of R/C to exit service adjustment mode.

1.2 CHANGING DATA AND SELECTING ADJUSTMENT CODE

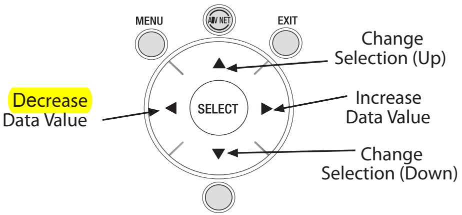
When the PDP set is in adjustment mode, the cursor ◀, ▶, ▲, ▼ and MENU keys of the remote control or front panel may be used as the adjustment keys.

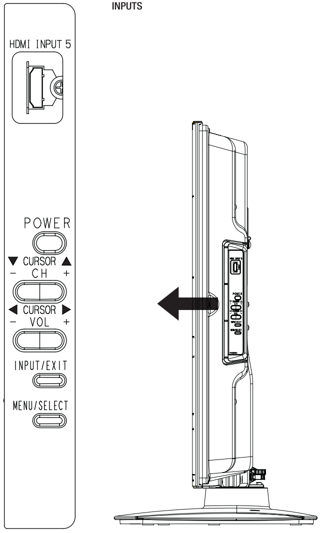
A. Use any Hitachi remote control when making an adjustment.
▲, ▼ keys are used for selecting adjustment item.



◀, ▶ keys are used for changing data values.
MENU key is used to advance through the adjustment mode menus and pages.

Remote Control Buttons





B. To make a selection, use the NUMBER pad on the PDP R/C ; example : select DEVICE press 69 then SELECT the DATA shown is "EB" ; if this DATA needs to be change press the ◀, ▶, keys to modify, when finish press SELECT key to store the new DATA value.
normal condition.

C. After finishing the necessary adjustment press the R/C EXIT key or EXIT key on the side panel.
Adjustment mode is released and PDP set returns to normal condition.

2 MEMORY INITIALIZE

2.1 MEMORY INITIALIZE OPERATION

NOTE: The execution of this function returns the adjustment codes to the preset values, therefore, **adjustment data will be lost**.

Procedure

(1) Enter Adjustment mode by the method described in sub-items 1.1 and 1.2 from item 1 (“Adjustment procedure start up”).
(2) Get to the second page of Adjust Mode by pressing remote control “Menu” key once, or with either the R/C or front panel ▲, ▼ cursor keys several times.
(3) Select MEMORY INIT adjust code.
(4) Activate MEMORY INIT by pressing ▶ cursor key for more than 3 seconds.
(5) Check the following process for initialization operation.

·Process of Memory Initialize operation.

① A screen is be colored **cyan** when MEMORY INIT start.

② A screen is be colored **green** when MEMORY INIT finish normally.

③ A screen is be colored **red** when MEMORY INIT finish abnormally.

(6) Do not unplug from AC outlet until this operation is complete and do not perform any key operation either, after this operation each factory setting and all adjust mode data should reset to delivery settings automatically.

(7) After Memory Initialize, it should be unplug AC cord. Unplug and plug AC cord and then all settings and data are updated.

(8) When PDP turns ON , it will tune CH03 this is the complete operation of Memory Initialize process.

2.2 FACTORY AND SERVICE ADJUSTMENTS

The adjustment item that is affected by the memory initialize operation is shown below:

*** JIG. R/C FACTORY PRESET CODE:92**

MEMORY INITIALIZE and FACTORY PRESET

ITEM	MEMORY INITIALIZE	FACTORY RESET	REMARKS
RGB(480p) ADJUST DATA	NOT INITIALIZE	NOT INITIALIZE	
WHITE BALANCE SETTING	NOT INITIALIZE	NOT INITIALIZE	
OTHER ADJUSTMENT MODE DATA	INITIALIZE	NOT INITIALIZE	
FACTORY RESET ITEM	INITIALIZE	INITIALIZE	
CHANNEL LIST	INITIALIZE	INITIALIZE	

Note: Perform pre heat-run for more than 20 min. before adjusting.

3.1 Sub-Contrast & Clamp Offset Adjustment

Preparation for adjustment

(1) Pre-heat at least 2 min. before the Final Adjust.

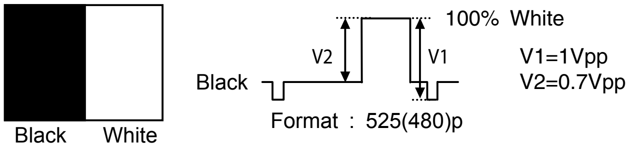
(2) Recall user menu and select 'Video'→ 'Picture Mode'→ 'Day(Dynamic)'→ 'Reset'.

(3) Receive following signal into input3 or input4(Comp) input.

Adjustment procedure

3.11 525p Sub-Contrast, Y/Cb/Cr Clamp offset adjustment

(1) Receive following 525(480)p Signal.



Adjustment signal for 525(480)p format

(2) Go into Service Adj. Menu and select 'RGB' .

(3) Press ▶ for over 2 seconds and have it perform automatic adjustment. When it's completed, 'Auto Adjusting' on the screen will be disappeared.

3.12 525i Cb,Cr Clamp offset adjustment

Preparation

(1) Change signal format from 525(480)p to 525(480)i. (See Fig.2)

Adjustment

(1) Select 'RGB' of Service Adj. Menu. Press ▶ for over 2 seconds and have it perform automatic adjustment. When it's completed, 'Auto Adjusting' on the screen will be disappeared.

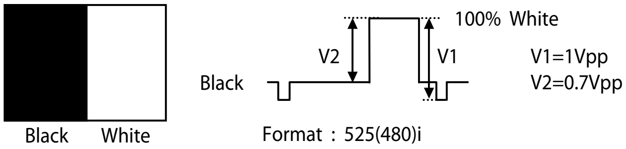


Fig.2 Adjustment signal for 525(480)i format

3.2 BRIGHTNESS CHECK

Preparation

(1) Start checking 20 minutes or more after the power is turned ON.

(2) Receive the color bar signal.

(3) The vertical incident illumination on the screen should be 20 lux or less.

(4) Picture Format is 16:9 standard mode.

(5) Select Day mode and reset.

Checking Procedure

(1) Check the brightness as below.

	DW-2
Can be seen at black	A1*
Can be seen slightly from black	A2*

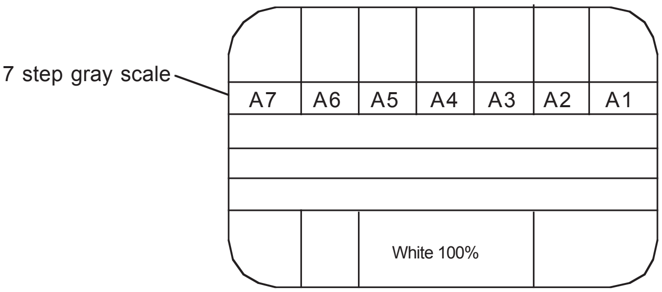
Note: If set black level is NG, readjust item Sub Contrast adj.

Measuring Conditions

(1) At the signal electric field strength 75± dBm, the specification mentioned above should be satisfied.

(2) At the input electric field 46-106dB , there should be no abnormality.

* From color bar pattern below.



Color Bar Signal

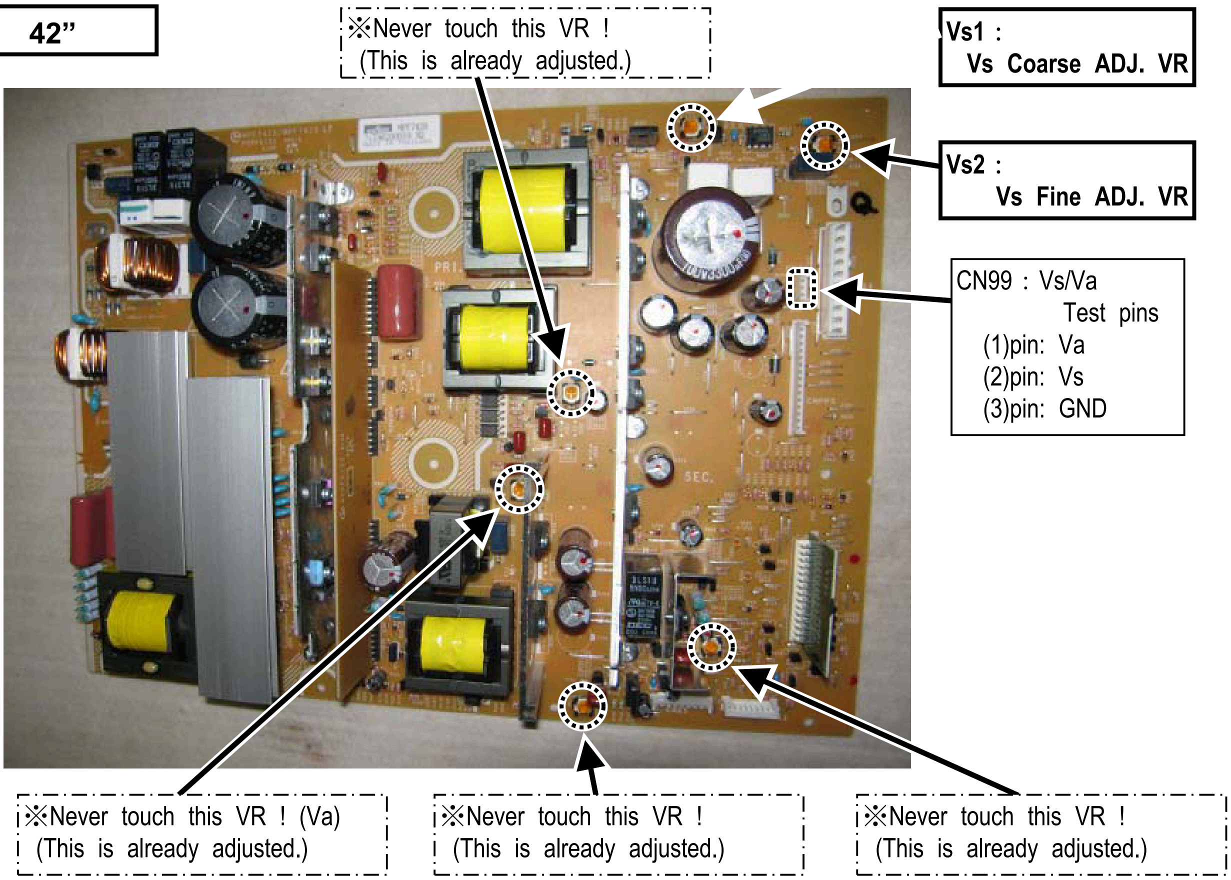
A4 has tolerance.
A4 can be between black and Slightly from black.

4. Vs, Va voltage adjustment

Item	Power Unit Vs, Va Adjustment	Adj. point	Refer to following

Adjustment Preparations	Adjustment Procedures	Remarks
(1) Turn on the set and perform pre-heat run more than 1 min on burn-in screen.	(1) Turn Vs ADJ to adjust Vs voltage to be within ±0.1V of the value specified in the label on the panel.	Permissive level of voltage in sufficient time of heat-run performed is: Vs: within±0.1V
(2) Receive full black pattern signal (or video silence signal; but the power will be automatically turned off after a few seconds by power save function.)	(2) Turn Va ADJ to adjust Va voltage to be within ±0.2V of the value specified in the label on the panel.	Va: within±0.2V 42'': Adjusted by manufacturing. 55'': Need to be adjusted.
(3) Connect voltmeter (which has an error within 0.02V or less) leads to Vs (or Va) and GND test points of the power unit.	(3) Reconfirm that Vs voltage remains within ±0.1V of the specified value. Readjust if it's outside of the margin. [Label example] <LOT>N6 Vs= 80.0V Va=60.0V Vw=140.0V Vx=60.0V	Label position (Reference) : Upper left If it's hard to read the voltage value because of the wiring positions, write it down by a marker at visible place in advance.

42''



※Never touch this VR !
(This is already adjusted.)

Vs1 : Vs Coarse ADJ. VR

Vs2 : Vs Fine ADJ. VR

CN99 : Vs/Va Test pins
(1)pin: Va
(2)pin: Vs
(3)pin: GND

※Never touch this VR ! (Va)
(This is already adjusted.)

※Never touch this VR !
(This is already adjusted.)

※Never touch this VR !
(This is already adjusted.)

5 WHITE BALANCE ADJUSTMENTS

General Notes for White Balance

(1) If the incident illumination is more than 20 lux, change the environment (location, lighting, etc.) and ensure it to be less than 20 lux.
(2) At least one of the color drive codes must stay at its maximum value, FF_H.

5.1 VIDEO COLOR TEMPERATURE ADJUSTMENT (HIGH)

Preparation 1

(1) Set the output of signal generator to white raster. (Ratio:100%)
(2) Component signal

Component signal	42”	55”
Video level:	0.700Vp-p	0.280Vp-p
SYNC:	0.300Vp-p	0.286Vp-p
Set-up level:	0V	0V

(3) Input white raster signal into COMPONENT input terminal of the PDP set.
(4) Set user control to Day mode. (Picture Mode)
(5) Confirm that the mode is set as “Factory Setting Mode”.
(6) Aspect: ① Video: Expanded
②

Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Set color temperature to “HIGH”.
(4) Ensure that Adjustment R/G/B DRIVE (HIGH) are all set as FF.
(5) After receiving White raster signal, step down the two (or one) among Adjustment R/G/B DRIVE (HIGH) and adjust the value shown in the following:

Specification
Video Color temperature (HIGH)
42"
x = 0.273 ± 0.005
y = 0.273 ± 0.005
(Color temp: 12000K)
55"
x = 0.273 ± 0.005
y = 0.273 ± 0.005
(Color temp: 12000K)

At least one of the data should be FF.

Remarks

(1) Color temperature should be adjusted under the condition in which the screen is the brightest, thus the initial value for adjustment is set to its maximum.
(2) Adjustment is made by reducing brightness only. Reduce a bright color for adjustment.
(3) Video color temperature & Adjustment No. are the same, but addresses in the memory are different, thus there’s no problem.

5.2 VIDEO COLOR TEMPERATURE ADJUSTMENT (MEDIUM)

Preparation

(1) Same as “Video Color Temperature adjustment: (HIGH)”. For 55” the video level changes to 0.700Vp-p.

Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Set color temperature to “MEDIUM”, using SEL key.
(4) Ensure that Adjustment R/G/B DRIVE (MEDIUM) are all set as FF.
(5) After receiving White raster signal, step down the two (or one) among Adjustment R/B/G DRIVE (MEDIUM) and adjust the value shown below.

Specification
Video Color temperature (MED)
42"
x = 0.285 ± 0.005
y = 0.293 ± 0.005
(Color temp: 9300K)
55"
x = 0.285 ± 0.005
y = 0.293 ± 0.005
(Color temp: 9300K)

At least one of the data should be FF.

BACK TO ADJUSTMENTS

5.3 VIDEO COLOR TEMPERATURE ADJUSTMENT (STD)

Preparation

(1) Same as “Video Color Temperature adjustment: (HIGH)”. For 55” video level changes to 0.700Vp-p.

Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Set color temperature to “STD”.
(4) Ensure that Adjustment R/G/B DRIVE (STD) are all set as FF.
(5) After receiving White raster signal, step down the two (or one) among Adjustment R/B/G DRIVE (STD) and adjust the value shown below.

Specification
Video Color temperature (STD)
42"
x = 0.314 ± 0.005
y = 0.327 ± 0.005
(Color temp: 6500K)
55"
x = 0.314 ± 0.005
y = 0.327 ± 0.005
(Color temp: 6500K)

At least one of the data should be FF.

5.4 VIDEO COLOR TEMPERATURE ADJUSTMENT (B/W) (Only for HDX models)

Preparation

(1) Same as “Video Color Temperature adjustment: (HIGH)”. For 55” video level changes to 0.700Vp-p.

Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Ensure that Adjustment R/G/B DRIVE (B/W) are all set as FF.
(4) After receiving White Raster signal, step down the two (or one) among Adjustment R/B/G DRIVE (B/W) and adjust the value shown below.

Specification
Video Color temperature (B/W)
42"
x = 0.335 ± 0.005
y = 0.343 ± 0.005
(Color temp: 5400K)
55"
x = 0.335 ± 0.005
y = 0.343 ± 0.005
(Color temp: 5400K)

At least one of the data should be FF.

Remarks

(1) Same as “Video Color Temperature adjustment (HIGH)”

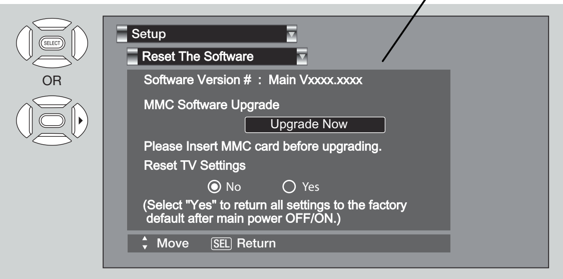
6. DIGITAL MAIN CHECK

6.1 SYSTEM SOFTWARE VERSION CHECK

(1) Press Menu button on the R/C or control panel.
(2) Enter the SETUP options, and then look for UPGRADES option.
(3) The Main software version will be display V0100.0000 as shown on Fig. 1.
(4) If this version needs to be change for a design improvement or failure, please select the Upgrade Now button.

Fig. 1

Software version



Software Version # : Main Vxxxx.xxxx

Please Insert MMC card before upgrading.

● No ○ Yes

(Select "Yes" to return all settings to the factory default after main power OFF/ON.)

(5) The upgrading process begin by filling a bar, when finish the message will say, “Upgrade complete …” when this appear unplug the TV from the AC line outlet to complete the process.
(6) Now plug again the TV and verify the new software version.
(7) The Main software version will display the latest version issue by design.

NOTE:

(1) A Service Bulletin will be sent when a new version is issued officially to the Service Department every time the software version needs to be modified.
(2) In case that the upgrade fails or when a CARD is inserted with new version and can’t upgrade ; please perform the **FACTORY RESET** process to the TV, then try upgrading again.

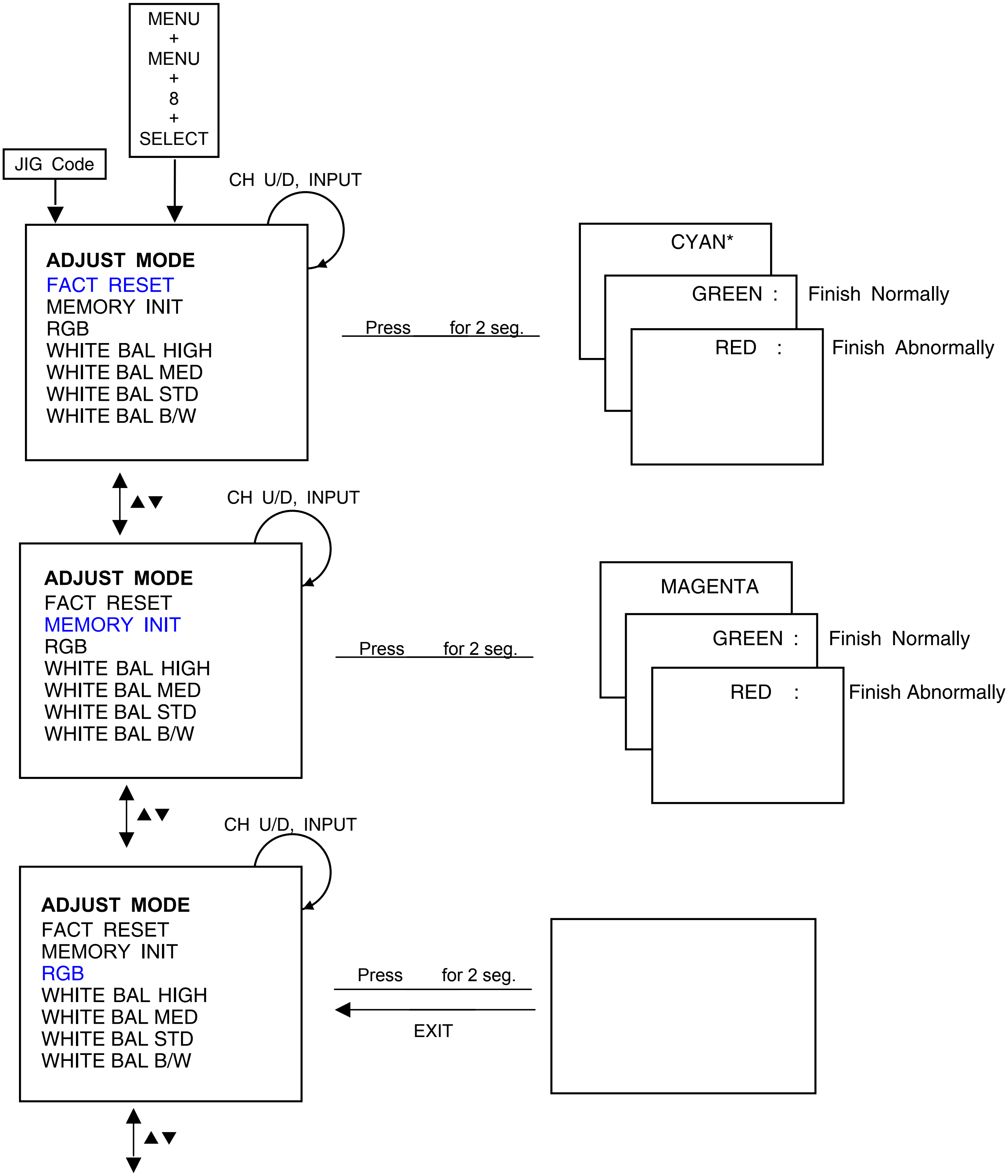
BACK TO ADJUSTMENTS

5.5 WHITE BALANCE ADJUSTMENT OSD FLOW DIAGRAM

5.5.1 Adjustment OSD Flowchart

(1) Adjust Mode OSD

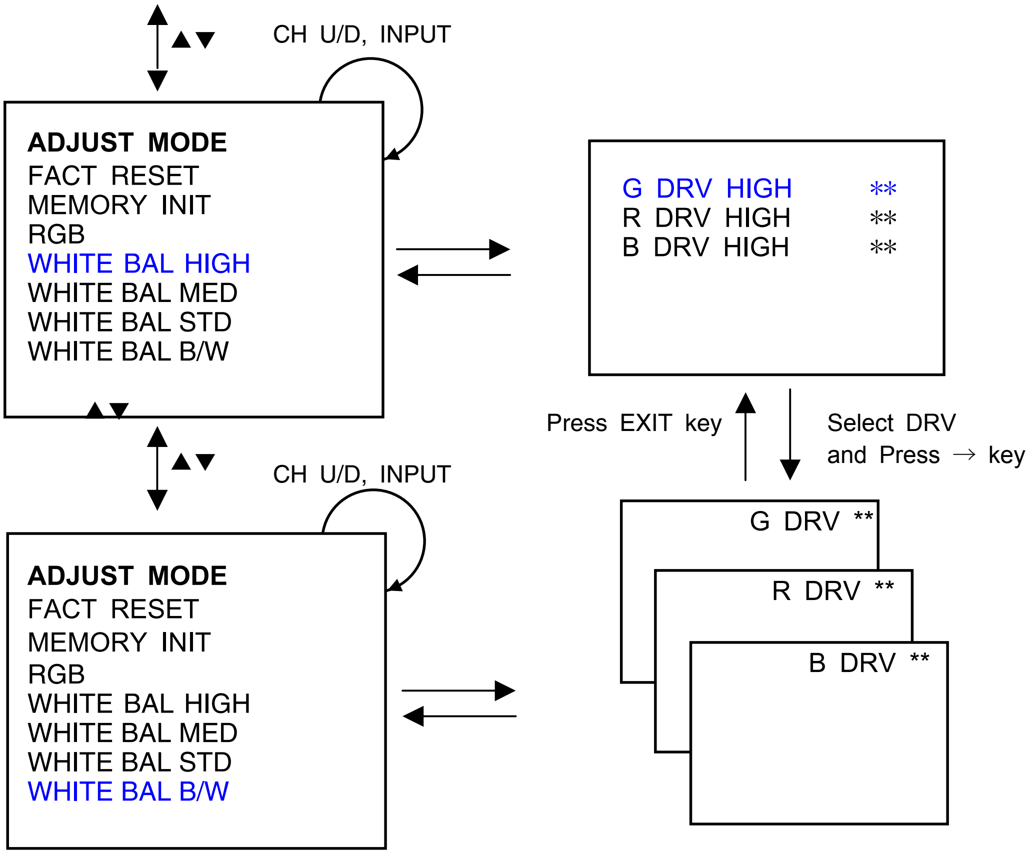
JIG R/C code:9C or Press [MENU]+[MENU]+[8]+[SELECT] of Control panel.


MENU
+
MENU
+
8
+
SELECT
JIG Code
CH U/D, INPUT
ADJUST MODE
FACT RESET
MEMORY INIT
RGB
WHITE BAL HIGH
WHITE BAL MED
WHITE BAL STD
WHITE BAL B/W
Press for 2 seg.
CYAN*
GREEN : Finish Normally
RED : Finish Abnormally
▲▼
CH U/D, INPUT
ADJUST MODE
FACT RESET
MEMORY INIT
RGB
WHITE BAL HIGH
WHITE BAL MED
WHITE BAL STD
WHITE BAL B/W
Press for 2 seg.
MAGENTA
GREEN : Finish Normally
RED : Finish Abnormally
▲▼
CH U/D, INPUT
ADJUST MODE
FACT RESET
MEMORY INIT
RGB
WHITE BAL HIGH
WHITE BAL MED
WHITE BAL STD
WHITE BAL B/W
Press for 2 seg.
EXIT
▲▼

CH 3

BACK TO ADJUSTMENTS

5.7.1 Adjustment OSD Flowchart (Cont.)


▲▼
CH U/D, INPUT
ADJUST MODE
FACT RESET
MEMORY INIT
RGB
WHITE BAL HIGH
WHITE BAL MED
WHITE BAL STD
WHITE BAL B/W
▲▼
G DRV HIGH **
R DRV HIGH **
B DRV HIGH **
Press EXIT key
Select DRV and Press → key
▲▼
CH U/D, INPUT
ADJUST MODE
FACT RESET
MEMORY INIT
RGB
WHITE BAL HIGH
WHITE BAL MED
WHITE BAL STD
WHITE BAL B/W
G DRV **
R DRV **
B DRV **

WHITE BALANCE
ADJUST MODE

VIDEO SETTINGS
(1) CONTRAST ; MAX
(2) COLOR,TINT,SHARP,BRIGHT ; CENTER
(3) COLOR TEMP ; HIGH

ADJUST
(1) Press ↑ ↓ to Select the G DRV,R DRV, B DRV.
(Initial value R/G/B DRV : FF)

(2) Press ← →to adjust

CH 3

BACK TO ADJUSTMENTS

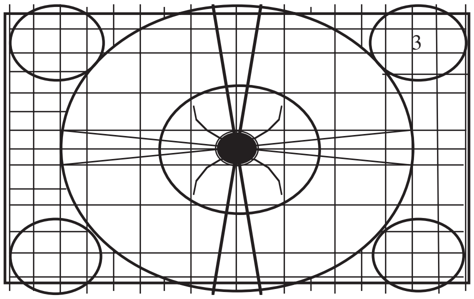
7. SCREEN CHECK

Preparation

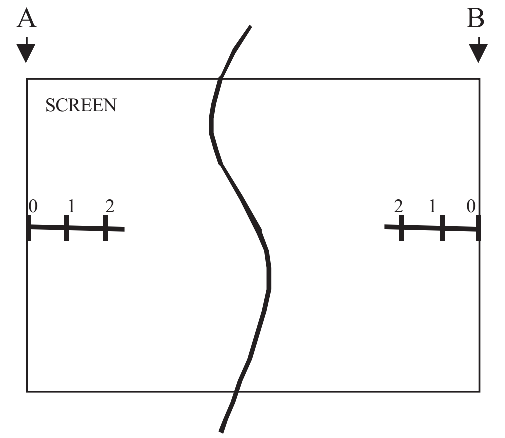
(1) Set AC120±1V.
(2) Turn on the power and leave it more than 5 min.
(3) Receive circle pattern at 4:3 Expanded mode.
(4) Input 480p and 1080i circle pattern into Component video 3. (ASPECT 16:9 Standard)

Checking

(1) Receive RF, 480p and 1080i signal, then check the following items 1~4:
  1. Check the symmetry of the pattern (right/left).
  2. Check the horizontal position and the balance (right/left).
  3. Check the symmetry of the pattern (top/bottom).
  4. Check the vertical position and the balance (top/bottom).



Remarks



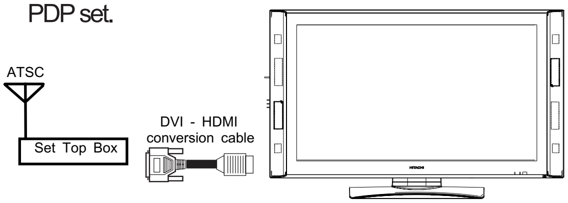
SIGNAL	ASPECT	SPEC(A,B)
Hitachi circle pattern	16:9 Standard1	0 +/- 0.5

8. HDMI adjustment

a. DVI compatibility check

Preparation

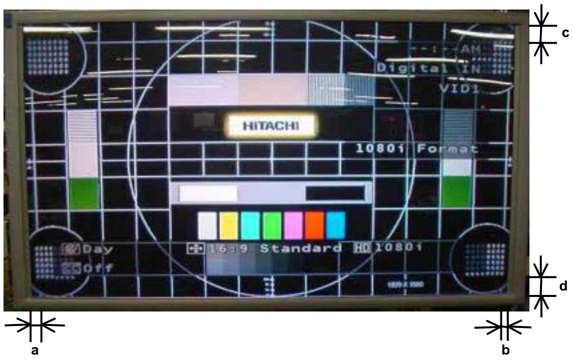
1. Prepare HDTV signal generator. (Zenith HD-SAT520)
2. Select DVI mode then 1080i format
3. Connect HDMI-DVI cable to the HDMI input on the PDP set.



b. DVI/HDCP/Timing (Display Position) Check

1. Set 1080i crosshatch with black background, with a small color bar and small multi-burst. (Confirm that the picture appears as shown below or similar)
2. Press “INFO” button on remote control to confirm that “1080i Format” indication appears.
3. Confirm that Horizontal and Vertical position meet the following spec.

Chassis	DW2				unit
Screen Size	42″	55″			inch
a	48±8	58±8			mm
b	45±8	55±8			
c	58±5	73±5			
d	56±5	68±5			
Aspect	16:9 Standard	16:9 Standard			



9. FACTORY RESET

After all of the adjustments of main chassis are finished, perform FACTORY RESET.

(1) Enter Adjustment Mode by the method described in sub-items 1-1 and 1-2 from page 30. (“Adjustment Procedure Start-up”).
(2) From the first menu in Adjustment Mode, select FACT RESET adjustment code.
(3) Activate FACT RESET by pressing “Right” cursor key once.
(4) Other procedure to acces the FACTORY RESET is by sending the 92 hex code with a programable R/C.
(5) The procedure of the FACTORY RESET process is the following and the DATA table is shown next.

BACK TO ADJUSTMENTS

·Process of FACTORY RESET operation.

① A screen is colored **magenta** when FACTORY RESET start.

② A screen is colored **green** when FACTORY RESET finish normally.

③ A screen is colored **RED** when FACTORY RESET finish abnormally.

(6) After FACTORY RESET, it should be unplug AC cord.Unplug and plug AC cord and then all settings and data are updated.

(7) When PDP turns ON , it will tune CH03 this is the complete operation of FACTORY RESET process.

9 . DATA TABLE OF SETTING FOR DELIVERY

USER Control Initialization
Settings for delivery (FACTORY RESET)

Function	Initial Data	Condition	42HDS69 55HDS69	42HDT79 55HDT79	42HDX99 55HDX99
Input Mode	Air		X	X	X
Channel	03-1ch		X	X	X
Favorite Channels	Not Registered		X	X	X
PIP On/Off	Off		X	X	X
PIP Mode	SPLIT		X	X	X
POP Position	Middle Right		X	X	X
PIP Position	Bottom Right		X	X	X
Freeze Mode	Main Freeze (1pix)		X	X	X
Master Volume	20 Step		X	X	X
Video					
Picture Mode	Dynamic		X	X	X
Contrast(White Lebel)	100%		X	X	X
Brightness(Black Lebel)	50%		X	X	X
Color	50%		X	X	X
Tint	CENTER		X	X	X
Sharpness	50%		X	X	X
Color Temperature	High		X	X	X
Black Enhancement	High		X	X	X
Contrast Mode	Dynamic		X	X	X
Noise Reduction	Low		X	X	X
Auto Movie Mode	Off		X	X	X
Color Management	-		X	X	-
Color Decoding	-		X	X	-
Auto Color	Off		X	X	-
White Balance	-		X	X	-
Aspect					
Auto Aspect	Off		X	X	X
Mode	4:3 Expanded 16:9 Standard1		X	X	X
Vertical Position	0		X	X	X
Black Side Panel	Off		X	X	X
Reset Video Settings	-		X	X	X

BACK TO ADJUSTMENTS

9. SETTING for Delivery (continued)

Function	Initial Data	Condition	42HDS69 55HDS69	42HDT79 55HDT79	42HDX99 55HDX99
Audio					
Treble	50%		X	X	X
Bass	50%		X	X	X
Balance	CENT		X	X	X
Surround	Off		X	X	X
Bass Boost	On		X	X	X
Audio Source	Stereo	Analog Broadcast	X	X	X
Internal Speakers	On		X	X	X
Auto Noise Cancel	Off	Analog Broadcast	X	X	X
Perfect Volume	Off		X	X	X
Loudness	Off		X	X	X
Language	1 (English)	DTV	X	X	X
Digital Output	Dolby Digital	DTV	X	X	X
DRC	On	DTV	X	X	X
Channel Manager					
Signal Meter					
Channel	-		X	X	X
Strength	-		X	X	X
Peak	-		X	X	X
SNR	-		X	X	X
Auto Channel Scan					
Source	Air		X	X	X
Reset	-		X	X	X
Start	-		X	X	X
Channel List					
FAV	Not Set		X	X	X
CH#	Air/Cable:2-13CH		X	X	X
Scan	On		X	X	X
Lock	Off		X	X	X
ID	-		X	X	X
Locks					
Change Access Code	“0000”,”7777”		X	X	X
Engage Lock					
Set Channel Lock	Not Set		X	X	X
Set Front Panel Lock	Not Set		X	X	X
Movie Ratings	Not Set		X	X	X
TV Ratings	Not Set		X	X	X
Canadian Ratings (Eng.)	Not Set		X	X	X
Canadian Ratings (Frn.)	Not Set		X	X	X
Alternate Ratings U.S.	-		X	X	X
Timers					
Set the Clock					
Time Zone	PST		X	X	X
Date	Jan 2006 01		X	X	X
Time	Not Registered		X	X	X
Automatically Adjust Clock for Daylight Savings Changes.	off		X	X	X
Set Sleep Timer	Not Set		X	X	X
Set Day/Night Timer					
Activate	off		X	X	X
Day Mode On	6:00 AM		X	X	X
Day Mode Off	6:00 PM		X	X	X
Set Event Timer	Not Set		-	—	X

9. SETTING for Delivery (continued)

Function	Initial Data	Condition	42HDS69 55HDS69	42HDT79 55HDT79	42HDX99 55HDX99
Setup					
Menu Preference					
Set The Language	English		X	X	X
Set The Menu Background	Shaded		X	X	X
Set The Screen Saver					
Main Picture Moving	Option 1		X	X	X
Image Power	Max		X	X	X
Screen Wipe	Wipe		X	X	X
Automatic Power Saving	Yes		X	X	X
Set The Inputs					
Input1 Rename	None		X	X	X
Input2 Rename	None		X	X	X
Input3 Rename	None		X	X	X
Input4 Rename	None		X	X	X
Input4 Auto Link (Auto/Remote/Off)	Off		X	X	X
Input5 Rename	None		X	X	X
Set the AV Net	(Wizard will be starting.)		X	-	-
Set Closed Caption					
Caption Display	Auto		X	X	X
Mode (Captions/Text)	Captions		X	X	X
Channel (1/2/3/4)	1		X	X	X
Digital Captions					
Language		1 (English)	X	X	X
Font (Default/1/2/3/4/5/6/7/8)		Default	X	X	X
Size (Small/Standard/Large)		Standard	X	X	X
Style (Standard/High Visibility)		Standard	X	X	X
Set The Output Terminals					
Video Out (TV Tuner Out / Monitor)	Monitor		X	X	X
Audio Out (Fixed/Variable)	Fixed		X	X	X
IR Out	Extended Length		X	X	-
Set The Quick Start Options	off		X	X	X
Reset The Software					
MMC Software Upgrade	-		X	X	X
Reset TV Settings	No		X	X	X
Power Swivel	Locked		X	X	-

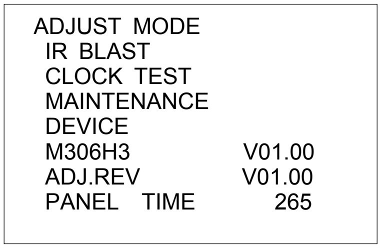
10 OSD Design Select

Adjustment Preparation

(1) Go to the Adjust Mode Menu.

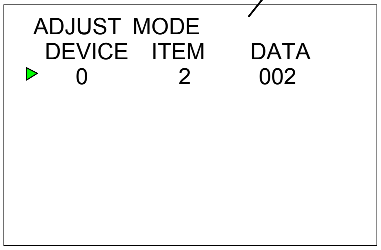
(2) Select “DEVICE” in the Adjust Mode Menu as follows.

(3) Press [▶] button to access the DEVICE menu.



```
ADJUST MODE
 IR BLAST
 CLOCK TEST
 MAINTENANCE
 DEVICE
 M306H3            V01.00
 ADJ.REV           V01.00
 PANEL   TIME         265
```

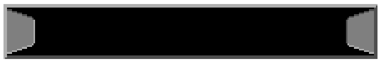
DEVICE menu



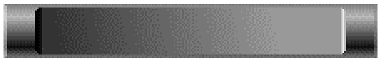
```
ADJUST MODE
 DEVICE   ITEM     DATA
▶  0        2       002
```

- DEVICE : Press 0 button. And press SELECT button to set.
- ITEM : Press 2 button. And press SELECT button to set.
- DATA : Press [▲▼]buttons to select as follows. And press SELECT button to set.

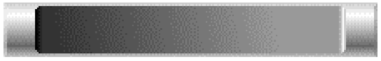
DATA=2 : DIREC (Directors Model)



DATA=1 : A (Regional Model)



DATA=0 : B (National Model)



(4) Unpluged and pluged to update the OSD Design.

Adjustment Procedure

(1) According to a list shown below, select an OSD design.

Class	Model	DATA	OSD Design
X	42/55HDX99	2	DIREC : Directors
T	42/55HDT79	1	A : Regional
S	42/55HDS69	0	B : National

BACK TO ADJUSTMENTS

TROUBLESHOOTING FLOW CHARTS

TROUBLE SHOOTING for DIGITAL MODULE (Device error check)

Digital Main P.W.B has five LED (KNIGHT RIDER) on board.
After Power ON these LED will be turned on in sequence as follows.
It may take a few seconds for the sequence.

LED sequence

Sequence	D205 (Red) <PiO04>	D204 (Green) <PiO03>	D203 (Yellow) <PiO02>	D202 (Orange) <PiO01>	D201 (Red) <PiO00>
1 (Start)	○	○	○	○	●
2	○	○	○	●	●
3	○	○	●	●	●
4	○	●	●	●	●
5 (End)	○	○	○	○	○

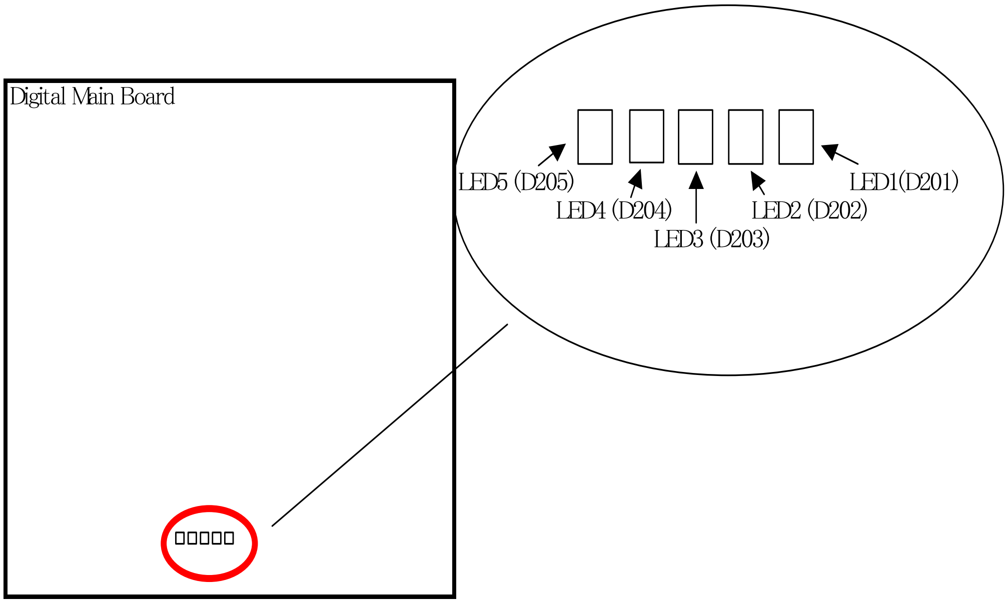
○ is turn off the LED, ● is Lighting the LED

After Program is loaded without error, all LED will be turned off.
Any LED should not light.
If some errors occur, LED will show the error pattern.

(1) Check that LED is not lit.
(2) If LED is lit, refer to the following table and check the involved devices.

(42” only)

Location of LEDs



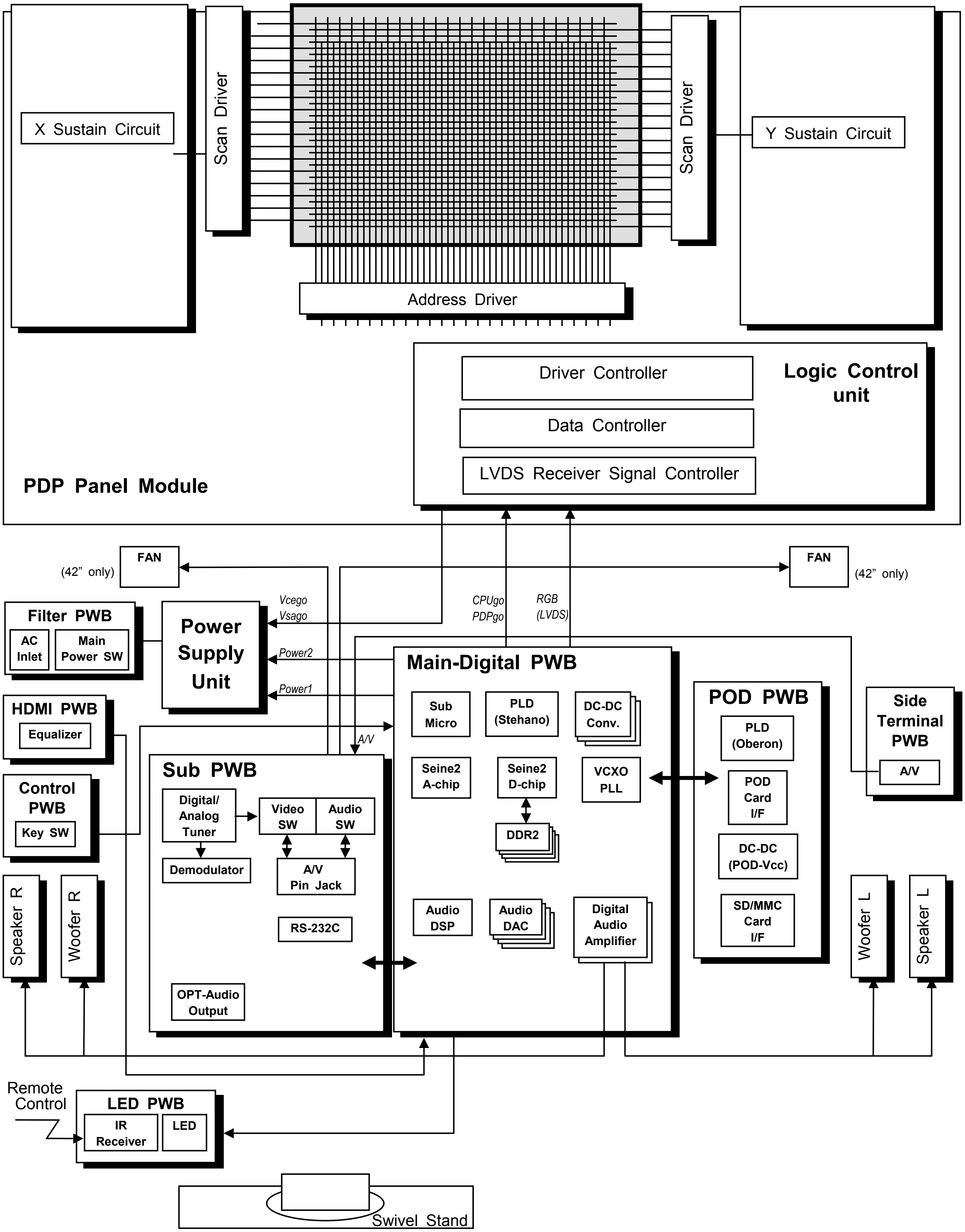
LED patterns for involved devices

No.	LED5	LED4	LED3	LED2	LED1	Device	Circuit No	Remarks
	D205 (Red)	D204 (Green)	D203 (Yellow)	D202 (Orange)	D201 (Red)			
1	○	○	○	○	○	–	–	No Error
2	○	○	○	○	●	Digital Tuner		Video/Audio of Cable/Air
3	○	○	○	●	○	Analog Tuner		Video/Audio of Cable/Air
4	○	○	●	○	○	MPEG(Seine2)		Video/Audio of Cable/Air
5	○	○	●	○	●	Graphics(Seine2)		All OSD
6	○	○	●	●	○	Flash Memory		Loading Program
7	○	○	●	●	●	I^{2}C(Seine2)		
8	○	●	○	○	○	IEEE1394		
9	○	○	○	●	●	DEMUX(Seine2)		
10	○ (42" only)	●	○	●	○	–	–	(42" only)
11	○	●	○	●	●	–	–	
12	○	●	●	○	○	–	–	
13	○	●	●	○	●	–	–	
14	○	●	●	●	○	–	–	
15	○	●	●	●	●	–	–	
16	●	○	○	○	○	–	–	
17	●	○	○	○	●	PDP Panel		
18	●	○	○	●	○	Sub Micro		
19	●	○	●	○	●	Seine OSD		
20	●	●	●	●	○	DDR SDRAM		

○ is turn off the LED, ● is lighting the LED.

CIRCUIT BLOCK DIAGRAM

[42/55HDS69]


X Sustain Circuit
Scan Driver
Scan Driver
Y Sustain Circuit
Address Driver
Driver Controller
Logic Control unit
Data Controller
LVDS Receiver Signal Controller
PDP Panel Module
FAN
(42” only)
FAN
(42” only)
Vcego
Vsago
CPUgo
PDPgo
RGB
(LVDS)
Filter PWB
AC Inlet
Main Power SW
Power Supply Unit
Power2
Power1
HDMI PWB
Equalizer
A/V
Main-Digital PWB
Sub Micro
PLD (Stehano)
DC-DC Conv.
Seine2 A-chip
Seine2 D-chip
VCXO PLL
DDR2
Audio DSP
Audio DAC
Digital Audio Amplifier
POD PWB
PLD (Oberon)
POD Card I/F
DC-DC (POD-Vcc)
SD/MMC Card I/F
Side Terminal PWB
A/V
Control PWB
Key SW
Sub PWB
Digital/ Analog Tuner
Video SW
Audio SW
Demodulator
A/V Pin Jack
RS-232C
OPT-Audio Output
Speaker R
Woofer R
Woofer L
Speaker L
Remote Control
LED PWB
IR Receiver
LED
Swivel Stand

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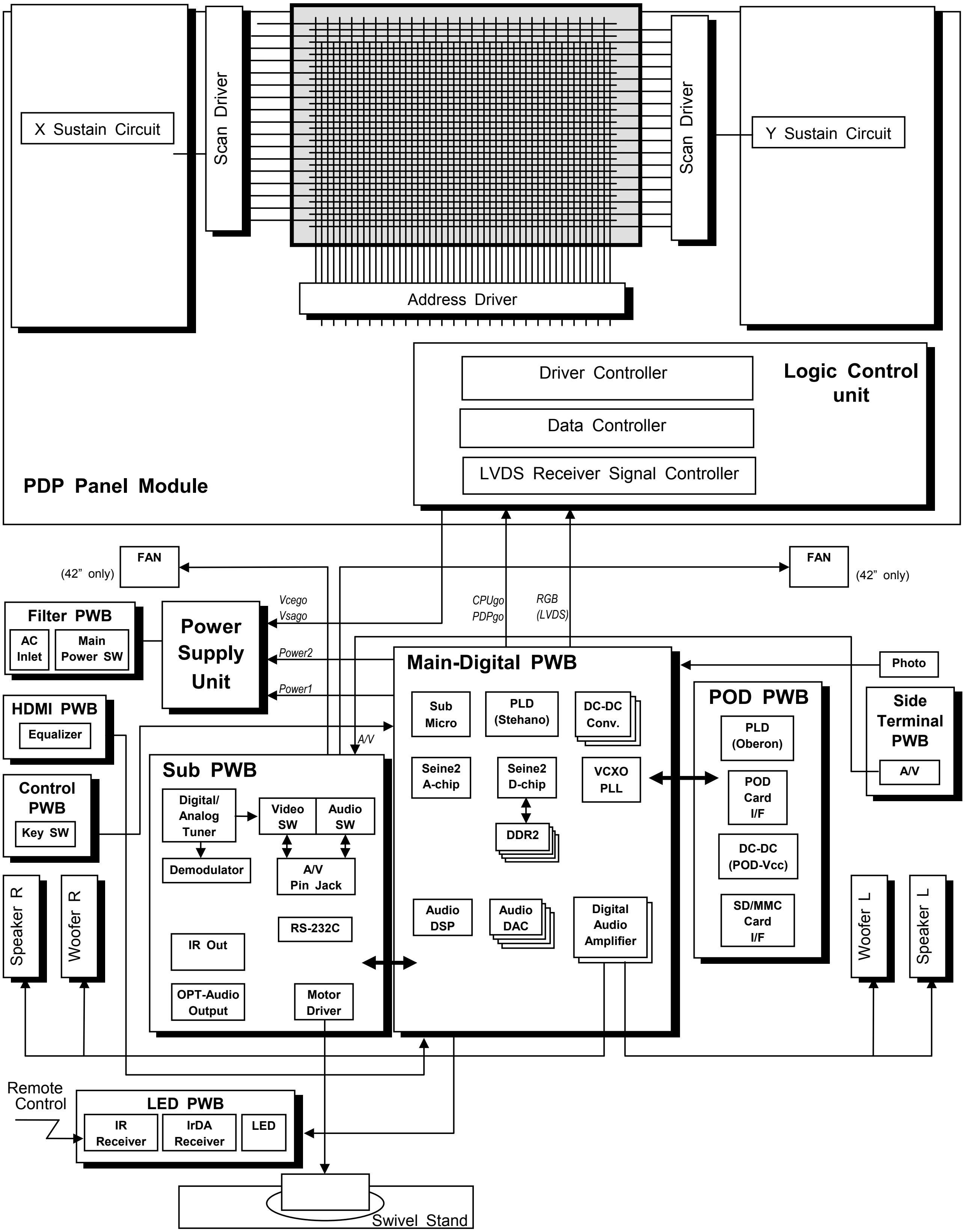
CIRCUIT BLOCK DIAGRAM

[42/55HDT79]


X Sustain Circuit
Scan Driver
Scan Driver
Y Sustain Circuit
Address Driver
Driver Controller
Data Controller
LVDS Receiver Signal Controller
Logic Control unit
PDP Panel Module
FAN
(42" only)
FAN
(42" only)
Vcego
Vsago
CPUgo
PDPgo
RGB
(LVDS)
Filter PWB
AC Inlet
Main Power SW
Power Supply Unit
Power2
Power1
HDMI PWB
Equalizer
Control PWB
Key SW
A/V
Main-Digital PWB
Sub Micro
PLD (Stehano)
DC-DC Conv.
Seine2 A-chip
Seine2 D-chip
VCXO PLL
DDR2
Audio DSP
Audio DAC
Digital Audio Amplifier
Photo
POD PWB
PLD (Oberon)
POD Card I/F
DC-DC (POD-Vcc)
SD/MMC Card I/F
Side Terminal PWB
A/V
Sub PWB
Digital/ Analog Tuner
Video SW
Audio SW
Demodulator
A/V Pin Jack
RS-232C
IR Out
OPT-Audio Output
Motor Driver
Speaker R
Woofer R
Woofer L
Speaker L
Remote Control
LED PWB
IR Receiver
IrDA Receiver
LED
Swivel Stand

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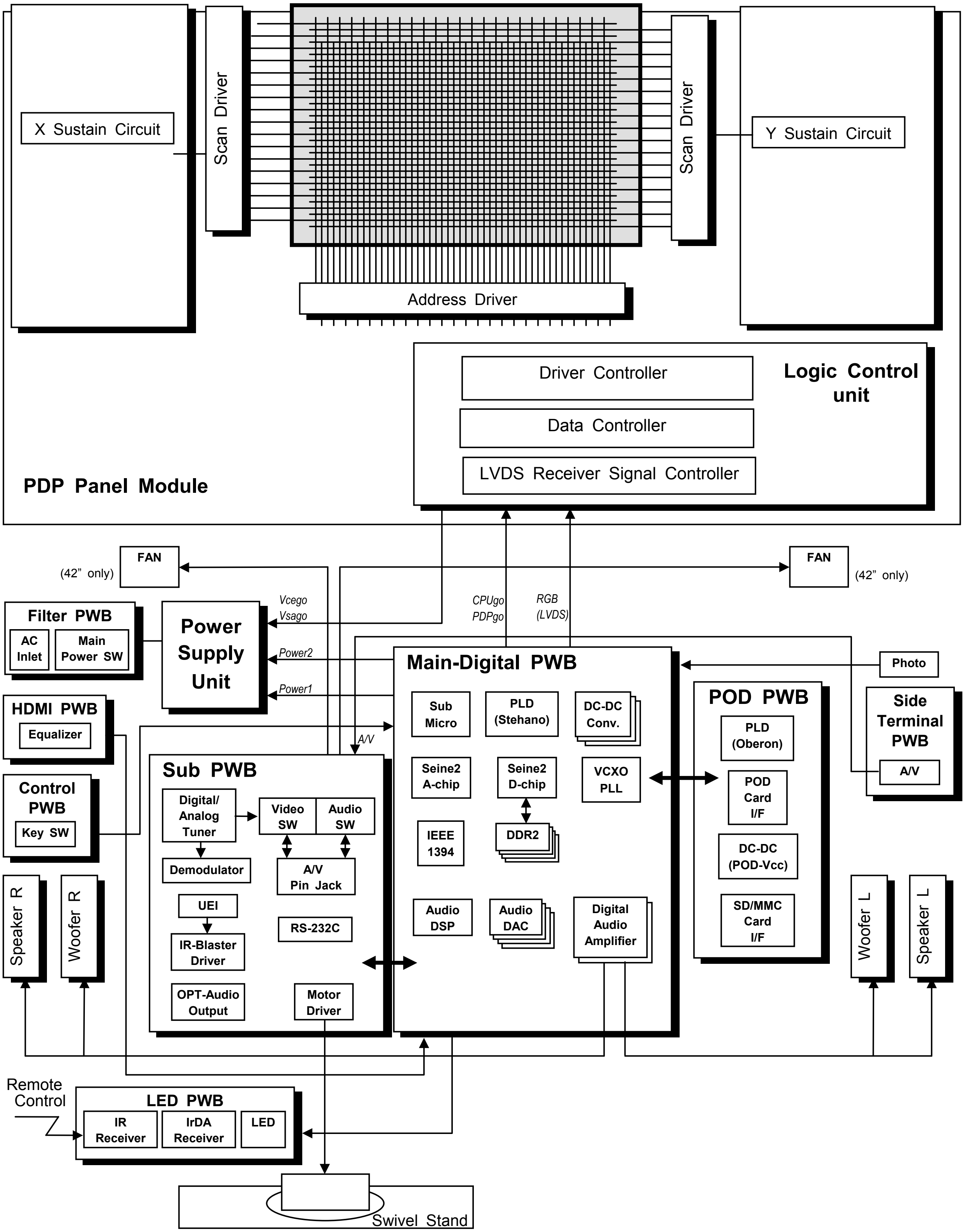
CIRCUIT BLOCK DIAGRAM

[42/55HDX99]


X Sustain Circuit
Scan Driver
Scan Driver
Y Sustain Circuit
Address Driver
Driver Controller
Data Controller
LVDS Receiver Signal Controller
Logic Control unit
PDP Panel Module
FAN
(42" only)
FAN
(42" only)
Vcego
Vsago
CPUgo
PDPgo
RGB
(LVDS)
Power2
Power1
Filter PWB
AC Inlet
Main Power SW
Power Supply Unit
HDMI PWB
Equalizer
Control PWB
Key SW
Main-Digital PWB
Sub Micro
PLD (Stehano)
DC-DC Conv.
Seine2 A-chip
Seine2 D-chip
VCXO PLL
IEEE 1394
DDR2
Audio DSP
Audio DAC
Digital Audio Amplifier
POD PWB
PLD (Oberon)
POD Card I/F
DC-DC (POD-Vcc)
SD/MMC Card I/F
Photo
Side Terminal PWB
A/V
A/V
Sub PWB
Digital/ Analog Tuner
Video SW
Audio SW
Demodulator
A/V Pin Jack
UEI
RS-232C
IR-Blaster Driver
OPT-Audio Output
Motor Driver
Speaker R
Woofer R
Woofer L
Speaker L
Remote Control
LED PWB
IR Receiver
IrDA Receiver
LED
Swivel Stand

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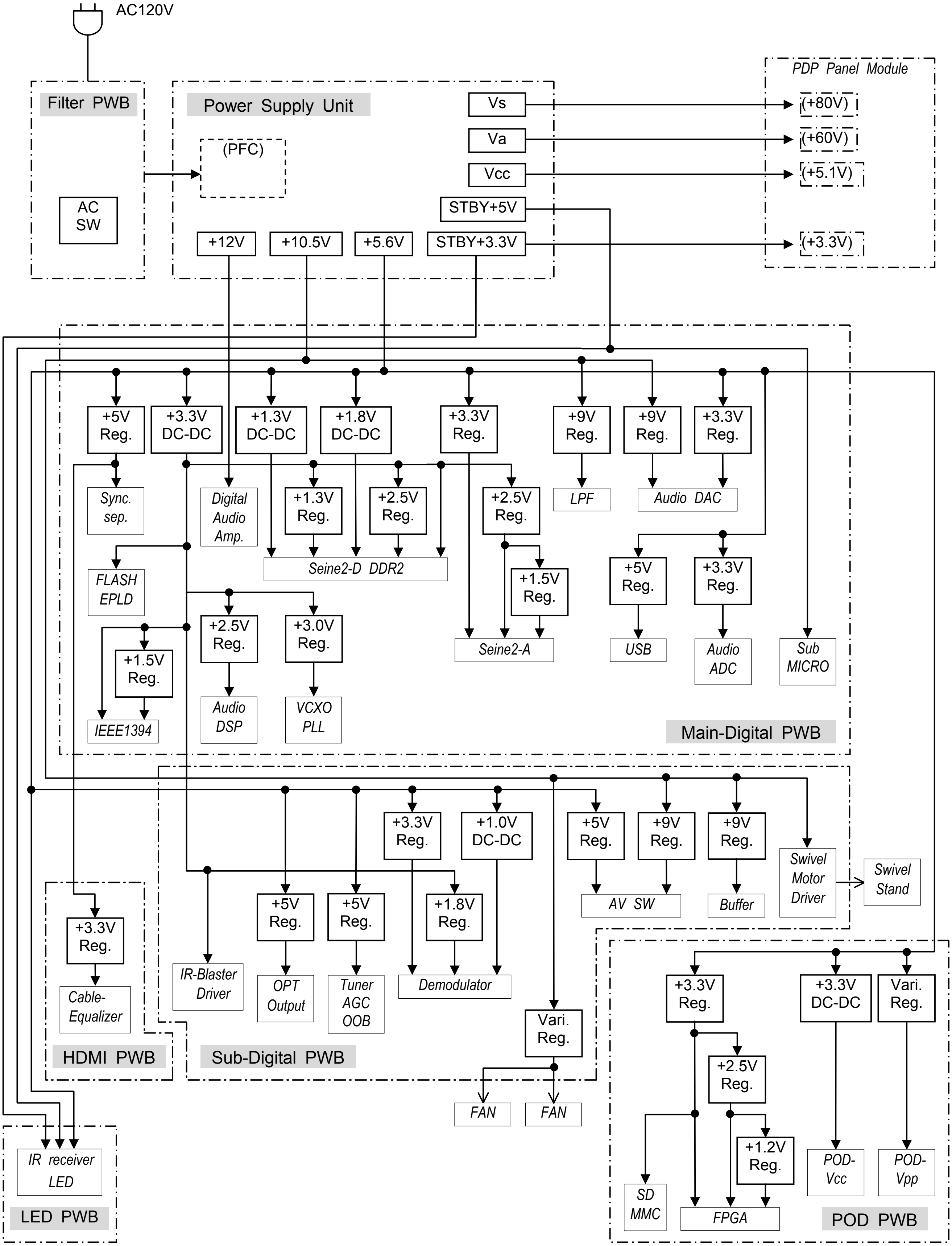
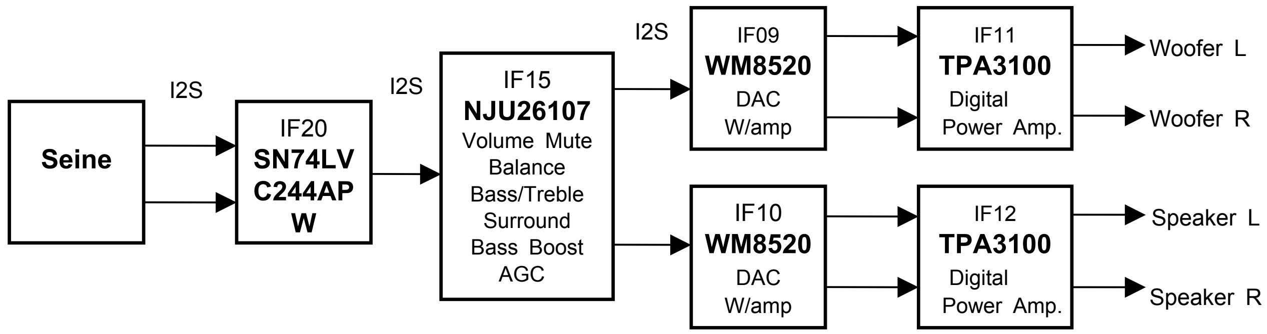
POWER SYSTEM BLOCK DIAGRAM


AC120V
Filter PWB
AC SW
Power Supply Unit
(PFC)
Vs
Va
Vcc
STBY+5V
+12V
+10.5V
+5.6V
STBY+3.3V
PDP Panel Module
(+80V)
(+60V)
(+5.1V)
(+3.3V)
+5V Reg.
+3.3V DC-DC
+1.3V DC-DC
+1.8V DC-DC
+3.3V Reg.
+9V Reg.
+9V Reg.
+3.3V Reg.
Sync. sep.
Digital Audio Amp.
+1.3V Reg.
+2.5V Reg.
+2.5V Reg.
LPF
Audio DAC
FLASH EPLD
Seine2-D DDR2
+1.5V Reg.
+5V Reg.
+3.3V Reg.
+2.5V Reg.
+3.0V Reg.
+1.5V Reg.
Seine2-A
USB
Audio ADC
Sub MICRO
Audio DSP
VCXO PLL
IEEE1394
Main-Digital PWB
+3.3V Reg.
+1.0V DC-DC
+5V Reg.
+9V Reg.
+9V Reg.
Swivel Motor Driver
Swivel Stand
+3.3V Reg.
+5V Reg.
+5V Reg.
+1.8V Reg.
AV SW
Buffer
Cable-Equalizer
IR-Blaster Driver
OPT Output
Tuner AGC OOB
Demodulator
Vari. Reg.
HDMI PWB
Sub-Digital PWB
FAN
FAN
+3.3V Reg.
+3.3V DC-DC
Vari. Reg.
+2.5V Reg.
+1.2V Reg.
SD MMC
FPGA
POD-Vcc
POD-Vpp
POD PWB
IR receiver LED
LED PWB

AUDIO CIRCUIT BLOCK DIAGRAM


Seine
I2S
IF20
SN74LV
C244AP
W
I2S
IF15
NJU26107
Volume Mute
Balance
Bass/Treble
Surround
Bass Boost
AGC
I2S
IF09
WM8520
DAC
W/amp
IF10
WM8520
DAC
W/amp
IF11
TPA3100
Digital
Power Amp.
IF12
TPA3100
Digital
Power Amp.
Woofer L
Woofer R
Speaker L
Speaker R

CONNECTION DIAGRAM

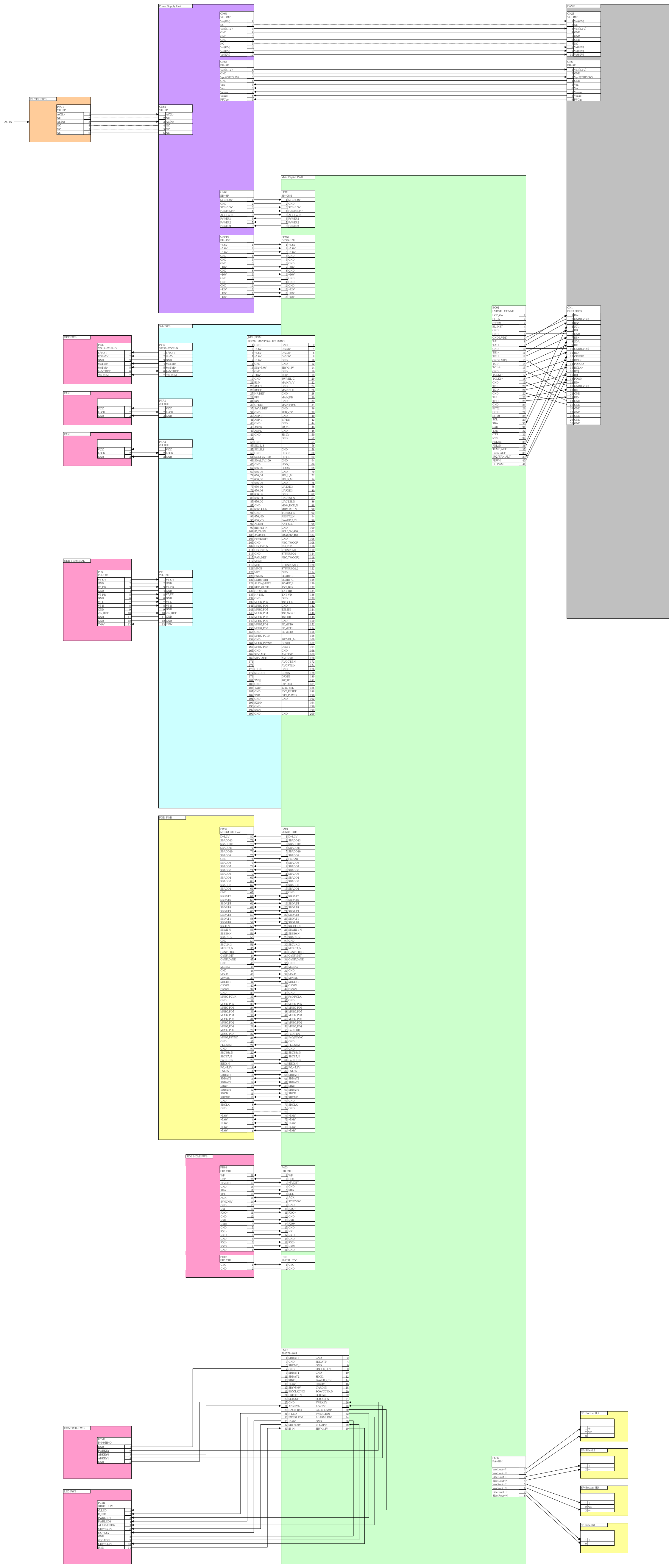

AC IN
FILTER PWB
PPU1
VH-6P
Power Supply Unit
CN61
VH-6P
CN64
VH-10P
CN68
PH-9P
CN63
EH-8P
CNPPS
EH-15P
PANEL
CN23
VH-10P
CN6
PH-9P
CN1
DF13-30DS
Main Digital PWB
PPM1
ZH-08H
PPM2
DF3D-15H
EC01
LVDS41-CONNE
Sub PWB
JMSU/PSM
501493-200VP/501497-200VS
OPT PWB
PWS
52418-07HS-D
PTW
53290-07VP-D
FAN
PFA1
ZH-03H
FAN
PFA2
ZH-03H
SIDE TERMINAL
PFS
ZH-13V
PTF
ZH-13H
POD PWB
PW01
501864-80HLow
PA01
501786-8011
SIDE HDMI PWB
PH01
FIR-21H
P403
FIR-21H
PH02
FIR-21H
P401
501331-02V
PMC
501571-40H
CONTROL PWB
PCM2
PH-05H-D
LED PWB
PCM1
501331-11V
PSPK
PA-08H
SP-Bottom (L)
SP-Side (L)
SP-Bottom (R)
SP-Side (R)

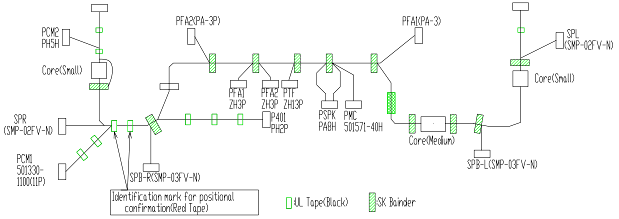
TABLE OF CONTENTS

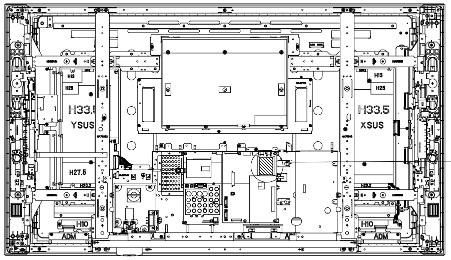
FINAL WIRING DIAGRAM

Table of connectors used

Connector wire		Plug Pin 1		Plug Pin 2		Compound harness making application
Name	Assy List	Board or Location	Name	Board or Location	Name	
EFAN1	Final Ass'y	SUB	PFA1	PAN1	-	* ○
EFAN2	Final Ass'y	SUB	PFA2	FAN2	-	* ○
EFS	Final Ass'y	SUB	PTF	SIDE-TERMINAL	PFS	* ○
EMC	Final Ass'y	CONTROL	PCM2	MAIN DIGITAL	PMC	* ○
		IR、LED	PCM1	MAIN DIGITAL	PMC	* ○
E401	Final Ass'y	SIDE-HDMI	PH02	MAIN DIGITAL	P401	* ○
ESP	Final Ass'y	Main_DIGITAL	PSPK	SP_R(2J)	SPR	* ○
		Main_DIGITAL	PSPK	SP_WF_R(3J)	SPB	* ○
		Main_DIGITAL	PSPK	SP_L(2J)	SPL	* ○
		Main_DIGITAL	PSPK	SP_WF_L(3J)	SPB	* ○
EUSB	Final Ass'y	Main_DIGITAL	-	Side input metal	-	
ECN1	Final Ass'y	Main_DIGITAL	EC01	LOGIC(PANEL)	CN01	
E403	Final Ass'y	SIDE-HDMI	PH01	MAIN DIGITAL	P403	
ECN6	Final Ass'y	POWER	CN68	PANEL LOGIC	CN6	
ECN23	Final Ass'y	POWER	CN64	PANEL X-SUS	CN23	
EPU1	Final Ass'y	POWER	CN61	FILTER	PPU1	
EPM2	Final Ass'y	POWER	CNPPS	MAIN DIGITAL	PPM2	
EPM1	Final Ass'y	POWER	CN63	MAIN DIGITAL	PPM1	
EA01	Final Ass'y	POD	PW01	MAIN DIGITAL	PA01	
EP01	Filter PWB	Filter PWB:Inlet GND	-	Chassi Frame	-	

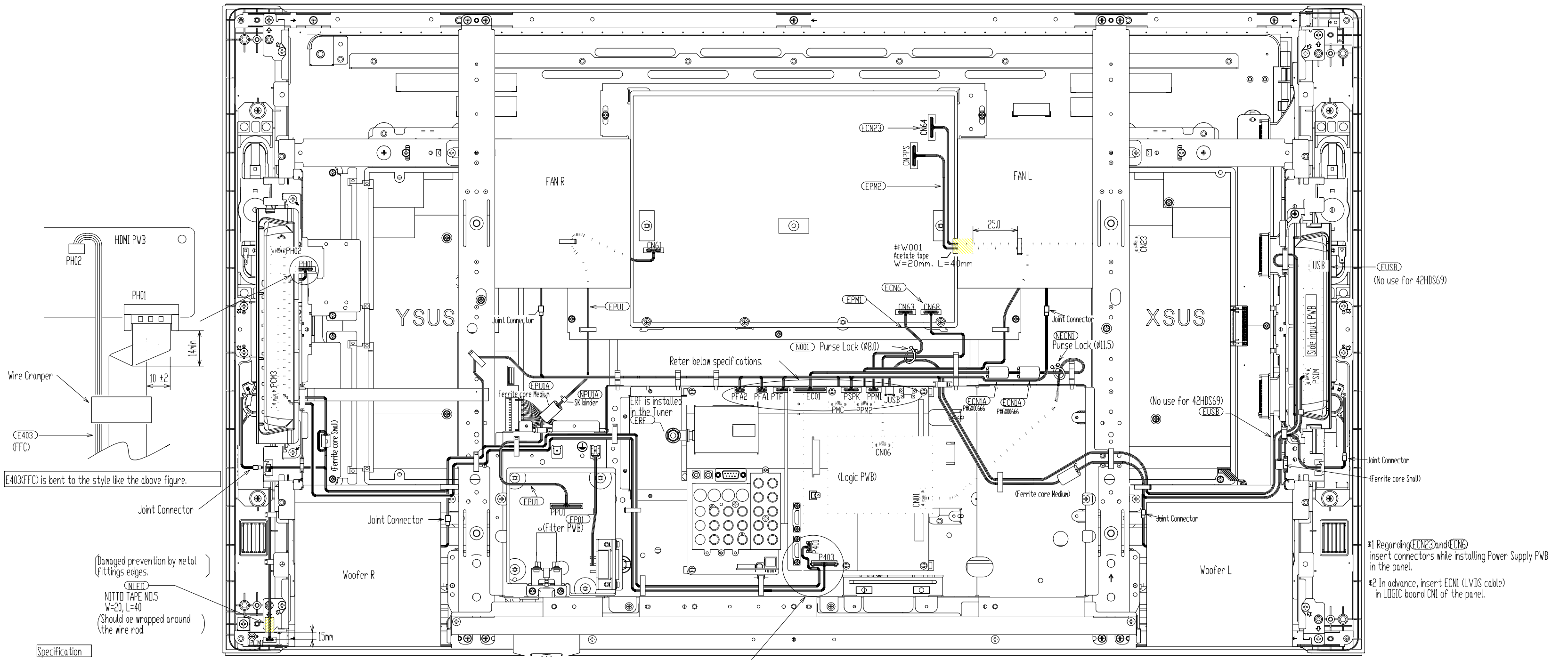
General view of special harness chart for DW2U 42PDP


SH02(SH2P)
PFS(PH-13V)
PFA2(PA-3P)
PFA1(PA-3)
PCM2
PH5H
Core(Small)
SPL
(SMP-02FV-N)
Core(Small)
PFA1
ZH3P
PFA2
ZH3P
PTF
ZH13P
P401
PH2P
PSPK
PA8H
PMC
501571-40H
Core(Medium)
SPR
(SMP-02FV-N)
PCM1
501330-
1100(11P)
SPB-R(SMP-03FV-N)
SPB-L(SMP-03FV-N)
Identification mark for positional confirmation(Red Tape)
UL Tape(Black)
SK Bainder


H33.5
YSUS
H33.5
XSUS
H27.5
H10
ADM

EA01 80P FFC

After POD PWB / Terminal Metal, EA01(80p FFC) is installed.

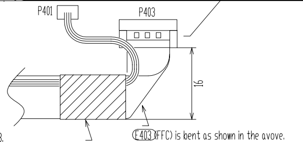

HDMI PWB
PH02
PH01
14mm
10 ±2
Wire Cramper
E403
(FFC)
E403(FFC) is bent to the style like the above figure.
Joint Connector
Damaged prevention by metal fittings edges.
NLED
NITTO TAPE NO.5
W=20, L=40
(Should be wrapped around the wire rod.)
PCM1
15mm
YSUS
FAN R
FAN L
XSUS
ECN23
CN64
CNPPS
EPM2
25.0
#W001
Acetate tape
W=20mm、L=40mm
CN23
CN61
EPU1
ECN6
EPM1
CN63
CN68
Joint Connector
NECN1
Purse Lock (Φ11.5)
N001
Purse Lock (Φ8.0)
Reter below specifications.
EPU1A
NPU1A
SK binder
Ferrite core Medium
ERF is installed in the Tuner
ERF
PFA2
PFA1
PTF
EC01
PSPK
PPM1
USB
PMC
PPM2
ECN1A
CN06
(Logic PWB)
CN01
(Ferrite core Medium)
Ferrite core Small
PCM3
EPU1
PPU1
EP01
(Filter PWB)
P401
P403
Joint Connector
Woofer R
Woofer L
USB
EUSB
(No use for 42HDS69)
Side input PWB
PSIM
(No use for 42HDS69)
EUSB
Joint Connector
(Ferrite core Small)
Joint Connector

*1 Regarding ECN23 and ECN6 insert connectors while installing Power Supply PWB in the panel.

*2 In advance, insert ECN1 (LVDS cable) in LOGIC board CN1 of the panel.

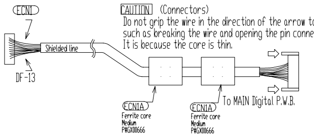
Specification

1. This drawing shows the wiring diagram for 42"PDP European Chassis.
The connection and wire styling are in the figure.
2. This drawing shows the rear view of the set.
3. Lock lead holders surely.
4. Cores with ( ) round brackets should be deliveried integrated with Harness.


P401
P403
16

E403(FFC) is bent as shown in the avove.

#W002 E403 and wire for P401 are fixed with the Tape.
(in oder to the wire rod must not approach the HDMI terminal that is to be near.)

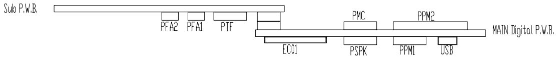

ECN1
Shielded line
DF-13
ECN1A
Ferrite core
Medium
P#GX00666
ECN1A
Ferrite core
Medium
P#GX00666
To MAIN Digital P.W.B.

CAUTION (Connectors)
Do not grip the wire in the direction of the arrow to avoid defects.
such as breaking the wire and opening the pin connector part.
It is because the core is thin.

"ECN1(LVDS)" has a fragile connector housing.
Be careful not to break it during the connecting operation..
During the connecting operation,push carefully both side housing latch terminal to the insert direction not to break it.

Push the arrow point to insert direction straightforward.

Arrangement chart of Connector on top Signal Shassis.


Sub P.W.B.
PFA2
PFA1
PTF
EC01
PMC
PSPK
PPM2
PPM1
USB
MAIN Digital P.W.B.

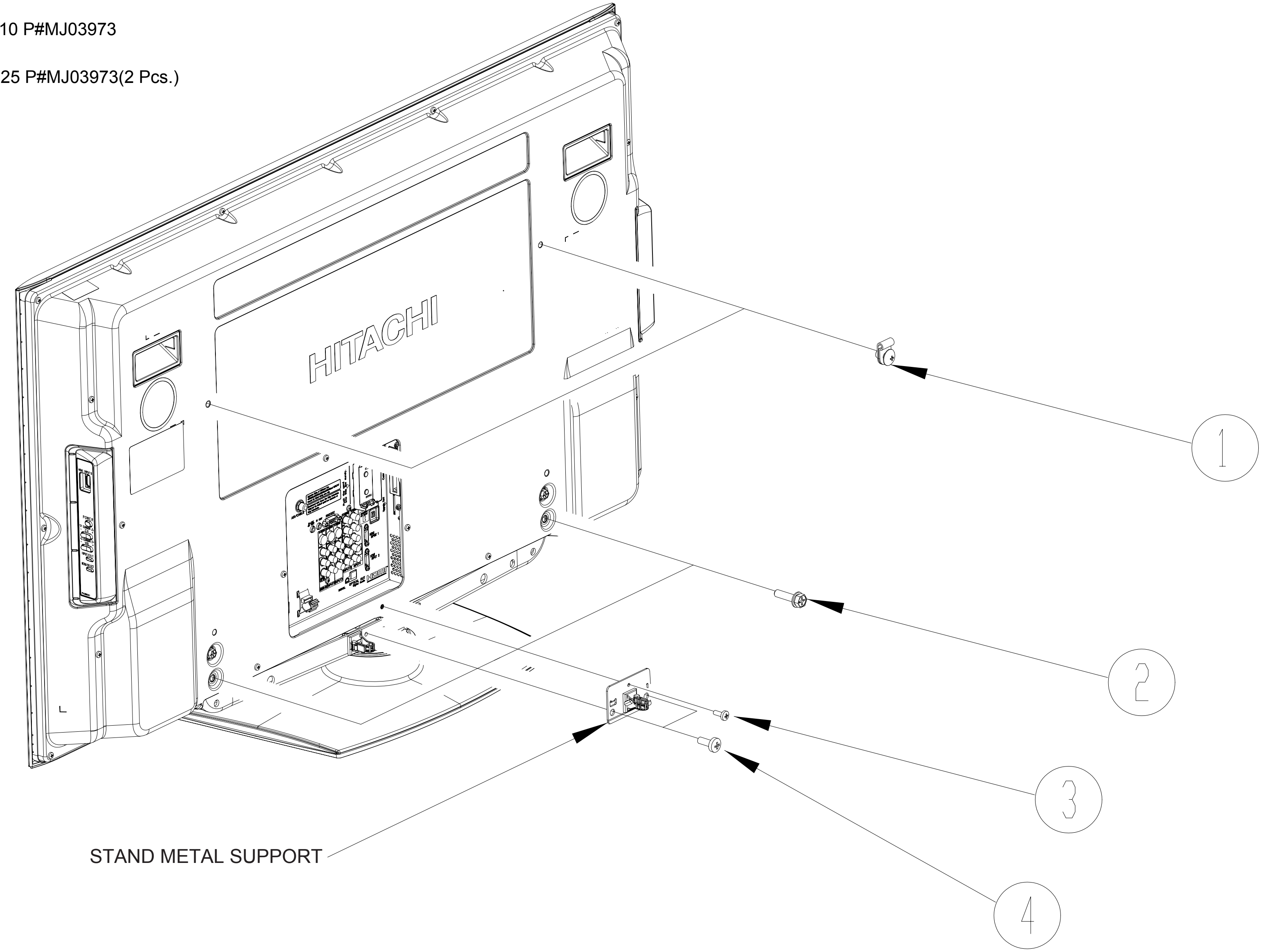
QUICK DISASSEMBLE GUIDE (Back Cover 1)

① Remove Screw M3M 6*18 P#MJ03963(2 Pcs.)
Cable Clamp M6 P#ML02111(2 Pcs.)

② Remove Screw M3M 6*25 P#MJ03973(2 Pcs.)

③ Remove Screw M3D 4*10 P#MJ03973

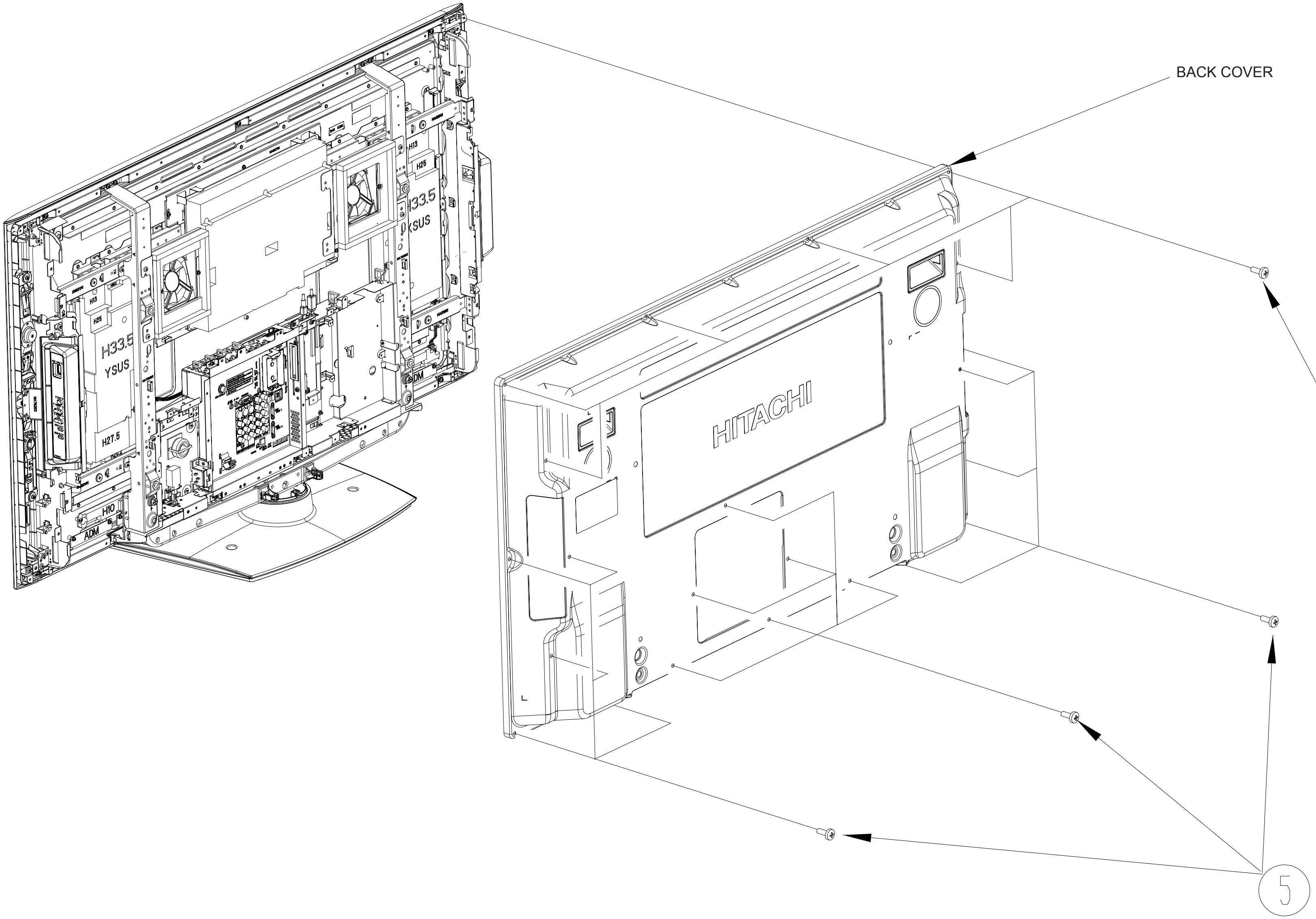
④ Remove Screw M3M 6*25 P#MJ03973(2 Pcs.)



STAND METAL SUPPORT

QUICK DISASSEMBLE GUIDE (Back Cover 2)

⑤ Remove Screw M3D 4*10 P#MJ03973(22 Pcs.)

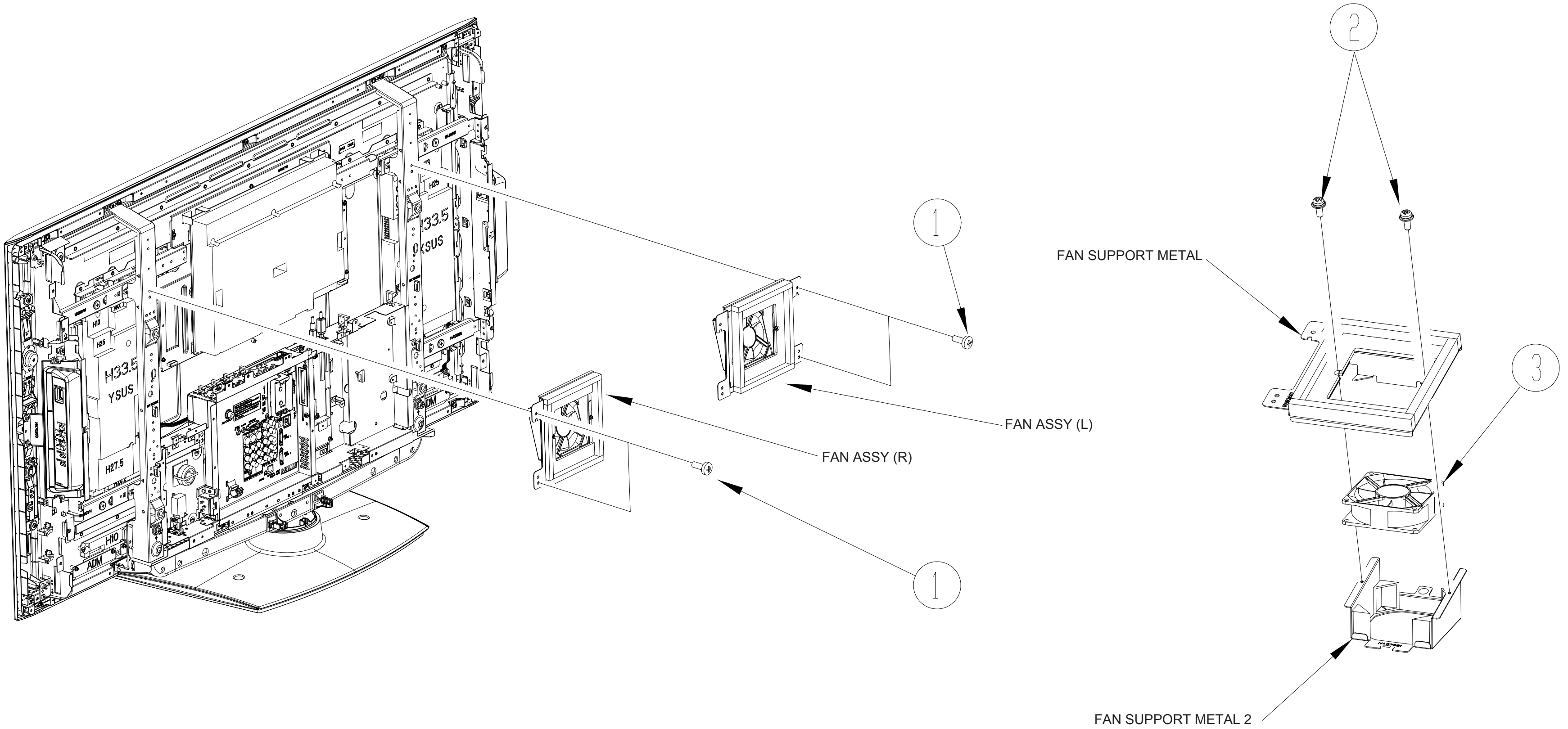

BACK COVER
HITACHI
H33.5
YSUS
XSUS
H13
H25
H27.5
H10
ADM
5
5

QUICK DISASSEMBLE GUIDE (Fans)

① Remove Screw M3E 4*10 P#MJ04039(4 Pcs.)

② Remove Screw M3E 3*8 P#MJ03963(4 Pcs.)

③ Remove Fans(R,L) P#GS00702(2 Pcs.)

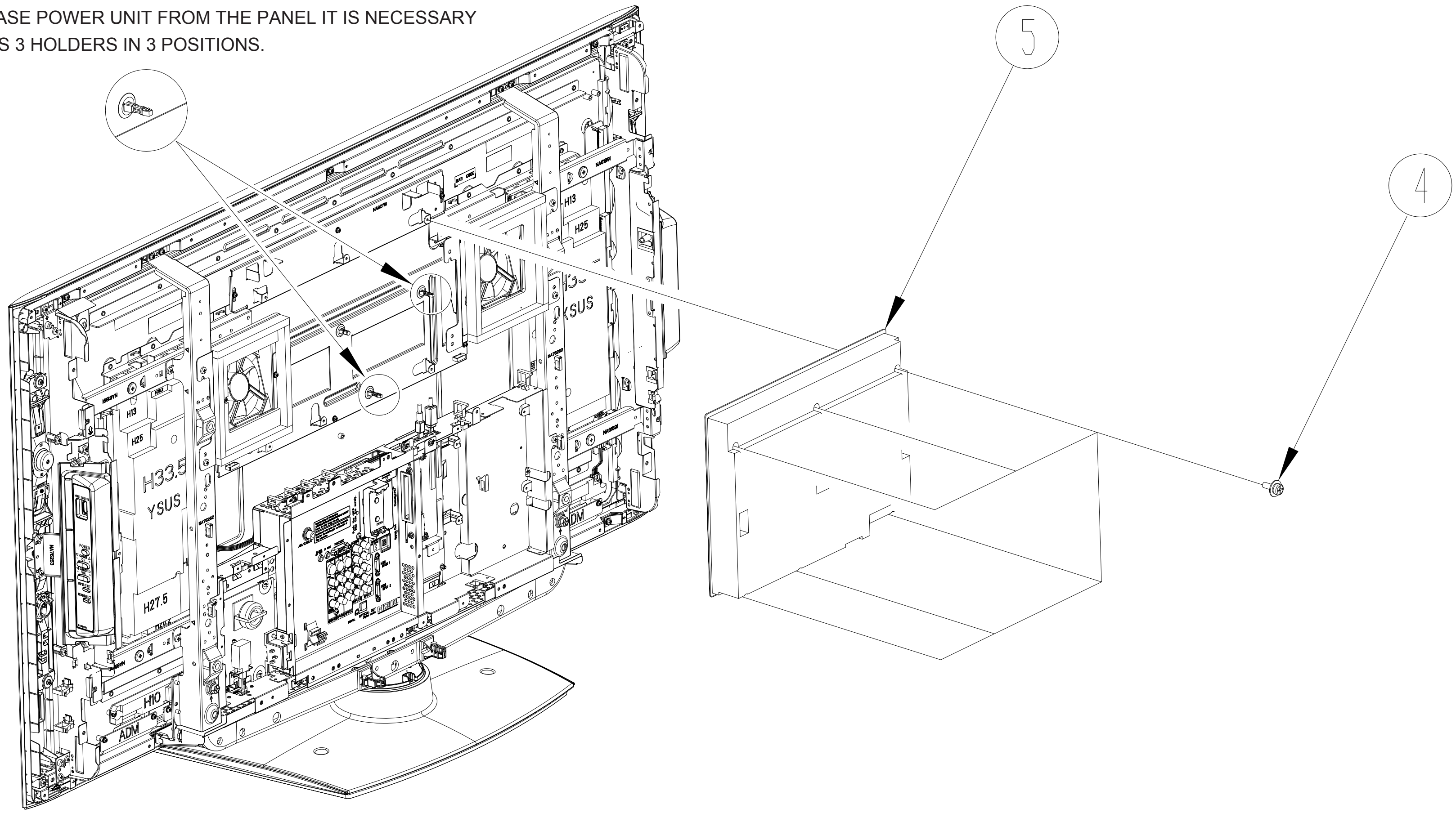

②
①
FAN SUPPORT METAL
③
FAN ASSY (L)
FAN ASSY (R)
①
FAN SUPPORT METAL 2
H33.5
YSUS
XSUS
H27.5
H10
ADM

QUICK DISASSEMBLE GUIDE (Power Unit)

④ Remove Screw M3E 3*8 P#MJ03963(2 Pcs.)
Screw M3M 3*8 P#MJ03598(4 Pcs.)

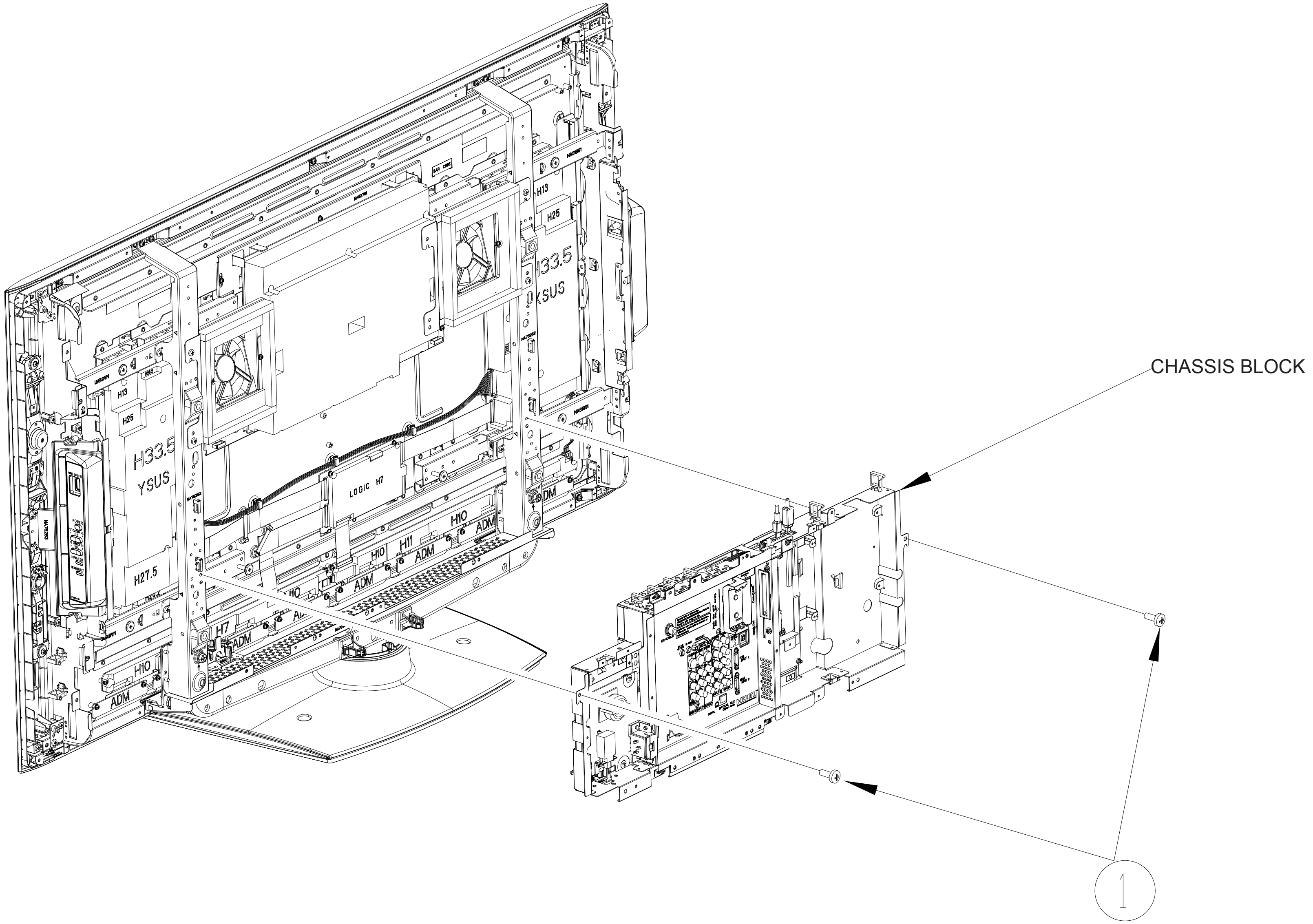
⑤ Remove Power Unit P#HA01731

TO RELEASE POWER UNIT FROM THE PANEL IT IS NECESSARY TO PRESS 3 HOLDERS IN 3 POSITIONS.


5
4
H13
H25
H33.5
YSUS
H27.5
H10
ADM
XSUS
DM

QUICK DISASSEMBLE GUIDE (Chassis Block)

① Remove Screw M3E 4*10 P#MJ04039(2 Pcs.)


CHASSIS BLOCK
1
H33.5
YSUS
H13
H25
H27.5
LOGIC H7
H10
H11
ADM
H7

QUICK DISASSEMBLE GUIDE (Terminal Metal)

② Remove Screw M3E 3*8 P#MJ03963(4 Pcs.)

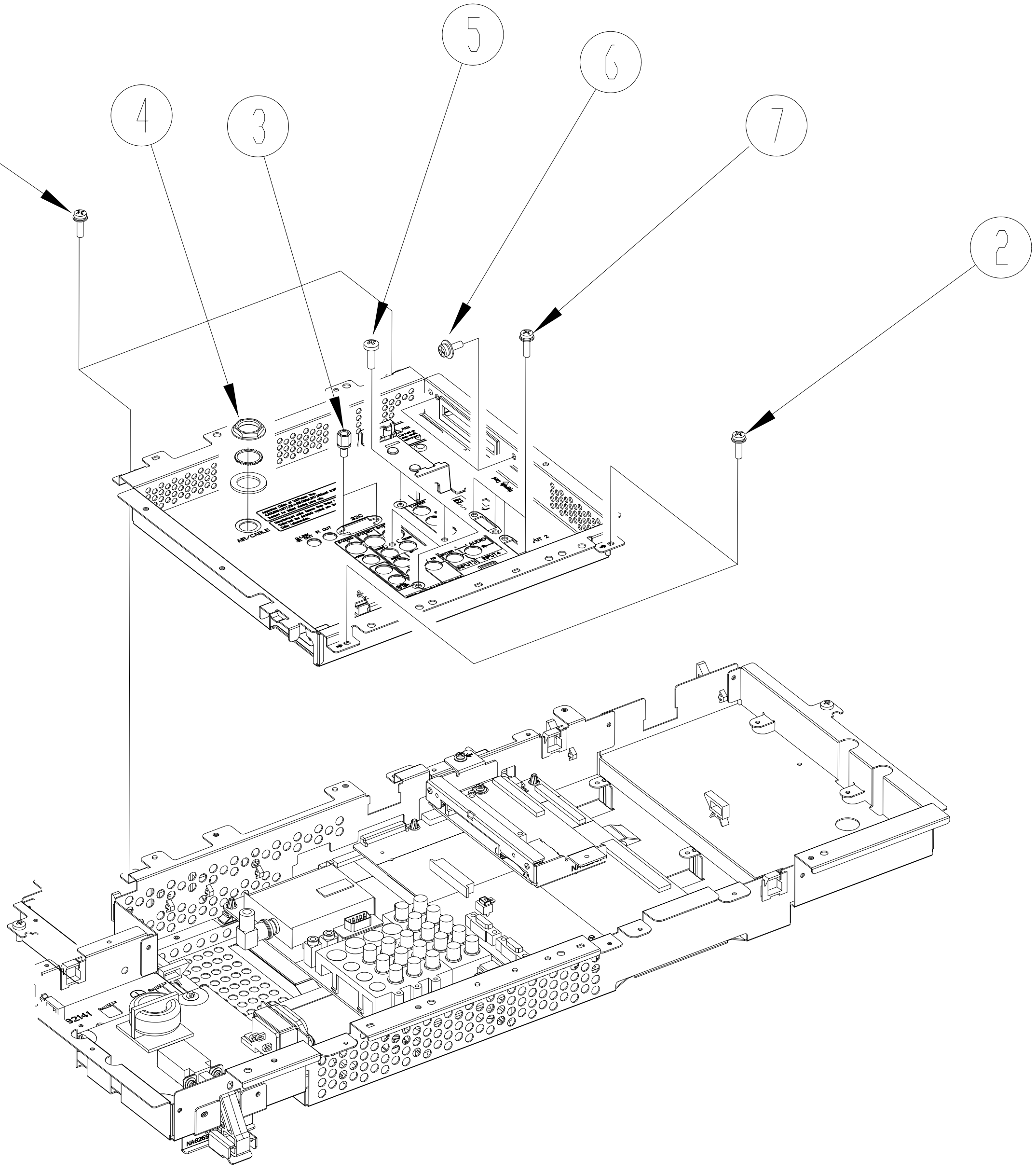
③ Remove Screw D-Sub P#MJ03351(2 Pcs.)

④ Remove Tuner Nut Washer P#MK01432

⑤ Remove Screw T2B 3*10 P#MJ03733(4 Pcs.)

⑥ Remove Screw M3E 3*8 P#MJ03963(4 Pcs.)

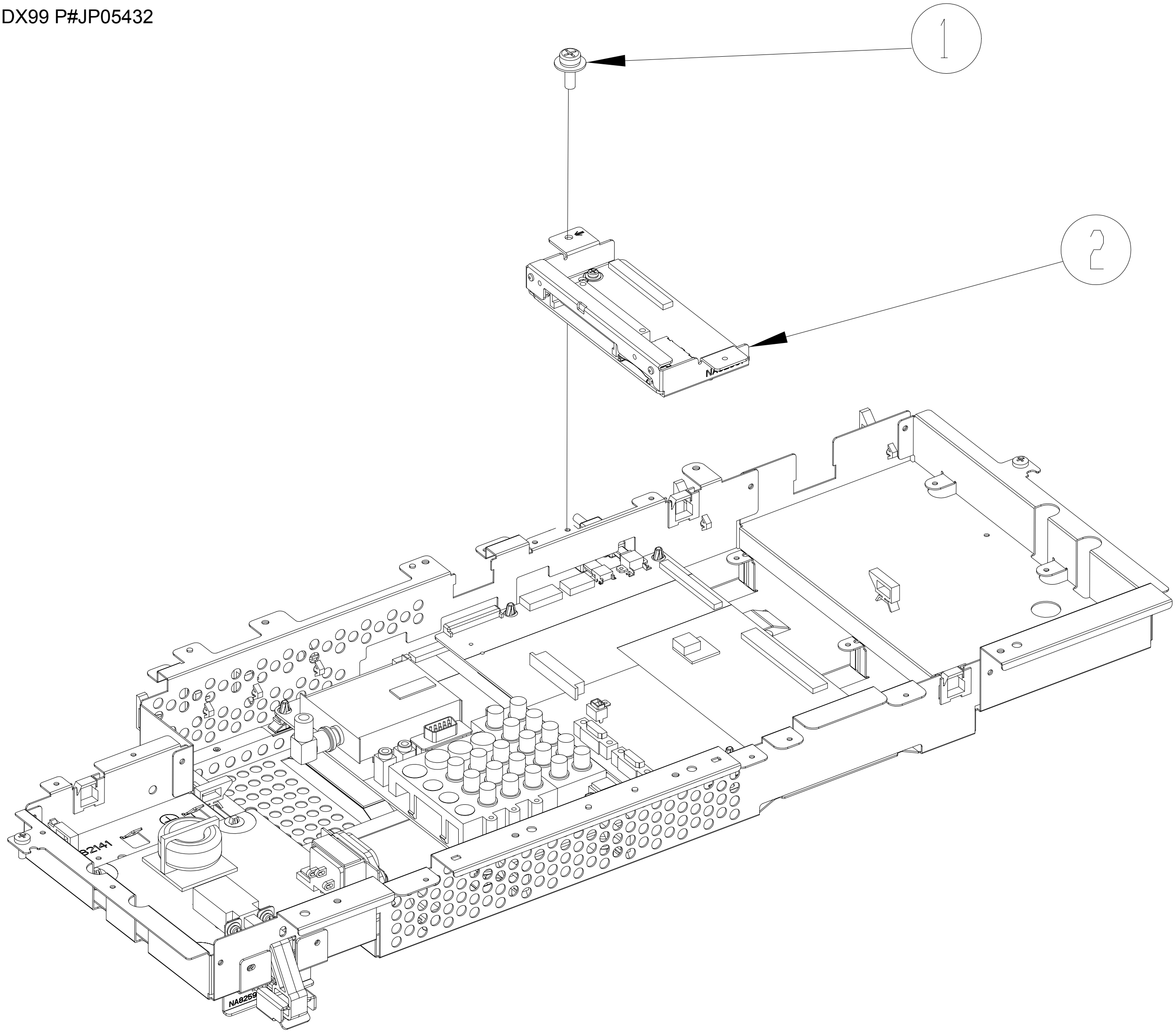
⑦ Remove Screw M3M 3*6 P#MJ03594(4 Pcs.)



QUICK DISASSEMBLE GUIDE (POD PWB)

① Remove Screw M3E 3*8 P#MJ03963

② Remove POD PWB Assy 42HDS69 P#JP50341
42HDT79 P#JP05342
42HDX99 P#JP05432

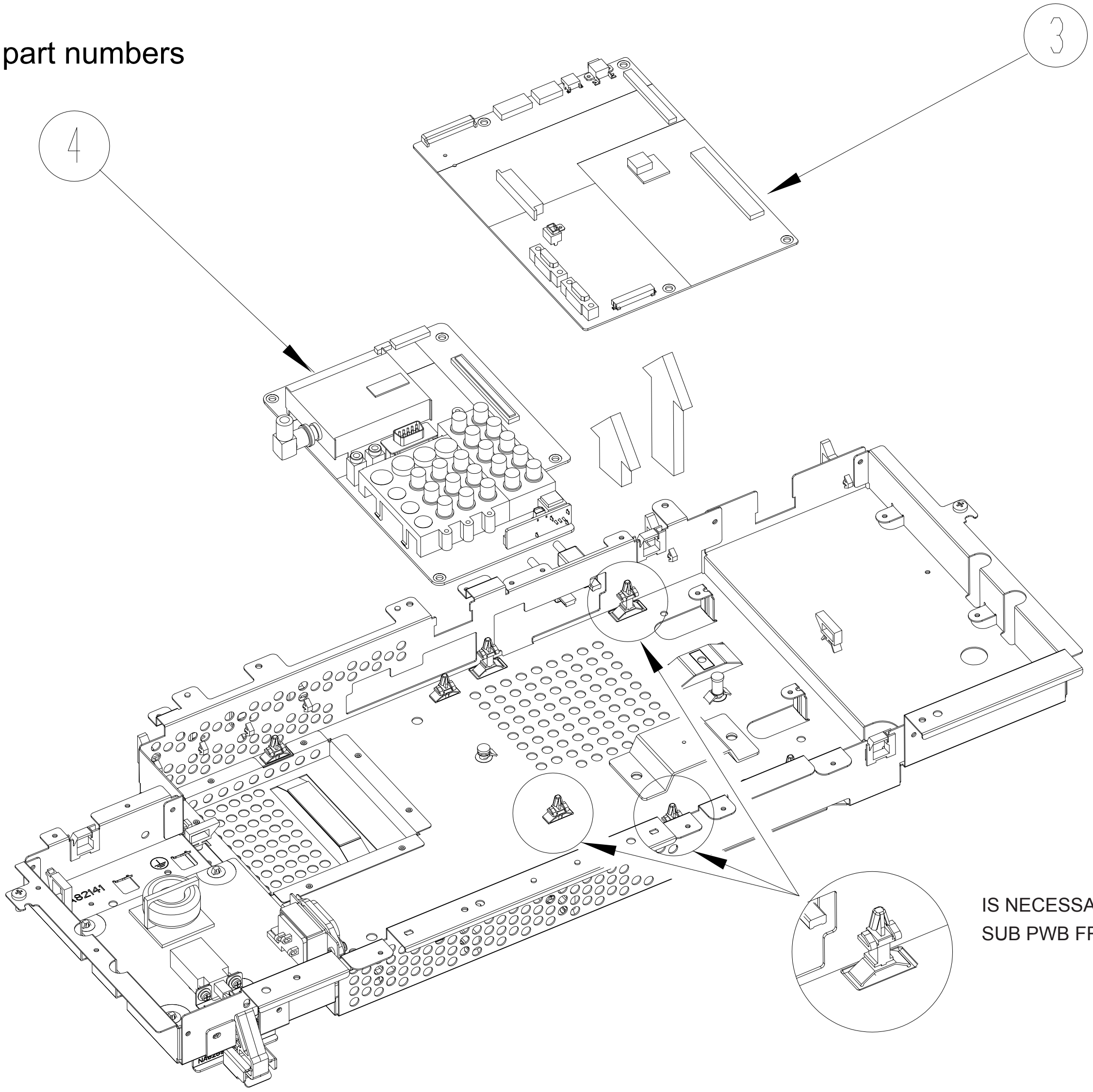


QUICK DISASSEMBLE GUIDE (Main / Sub Digital PWB)

③ Remove Main Digital PWB Assy

④ Remove Sub Digital PWB Assy

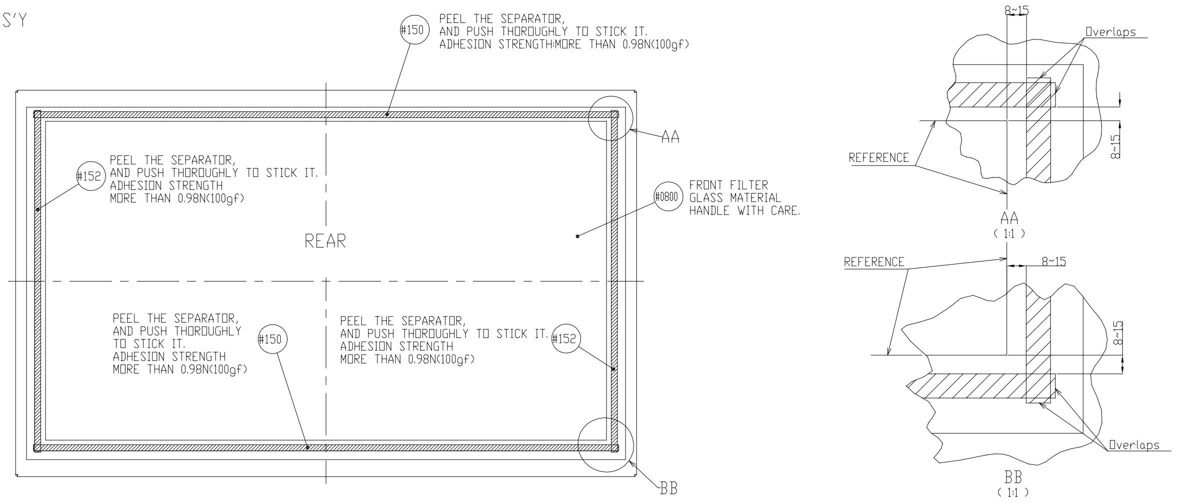
See page 115 for part numbers



IS NECESSARY TO RELEASE MAIN PWB AND
SUB PWB FROM BOARD HOLDERS(3 POSITIONS)

SYM.	P#	DESCRIPTION
#0800	KS21321K	FRONT FILTER HDS/HDT
#0800	KS21322K	FRONT FILTER HDX
#110	PM30963	DW2 42 AL DECO T HDS
#110	PM30964	DW2 42 AL DECO T HDT
#110	PM30965	DW2 42 AL DECO T HDX
#112	NA80851	DW2 42 F FRAME TB
#114	MF02021	GASKET 6-3-1060 J1G
#118	MJ03618	SCRW M3M_4X12 Carbon steel
#120	PM30972	DW2 42AL DECO B HDS/T
#120	PM30973	DW2 42 AL DECO B HDX
#122	NA80851	DW2 42 F FRAME TB
#124	MF02021	GASKET 6-3-1060 J1G
#128	MJ03618	SCRW M3M_4X12 Carbon steel
#129	MJ03963	SCRW M3E 3*8PN+LSK
#150	MN07835	DW2 42 AIR FILTER TB
#152	MN07836	DW2 42 AIR FILTER S

1.FILTER ASS'Y


#150
#152
REAR
#0800
#150
#152
AA
BB
8~15
Overlaps
REFERENCE
8~15
AA
(1:1)
REFERENCE
8~15
8~15
Overlaps
BB
(1:1)

PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH:MORE THAN 0.98N(100gf)

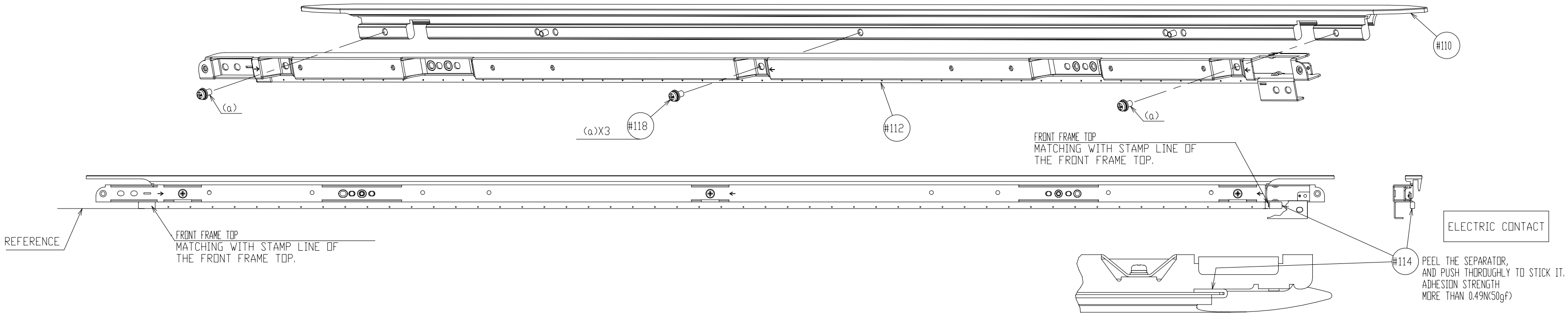
PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH
MORE THAN 0.98N(100gf)

FRONT FILTER
GLASS MATERIAL
HANDLE WITH CARE.

PEEL THE SEPARATOR,
AND PUSH THOROUGHLY
TO STICK IT.
ADHESION STRENGTH
MORE THAN 0.98N(100gf)

PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH
MORE THAN 0.98N(100gf)

2.DECOBAR TOP ASS'Y

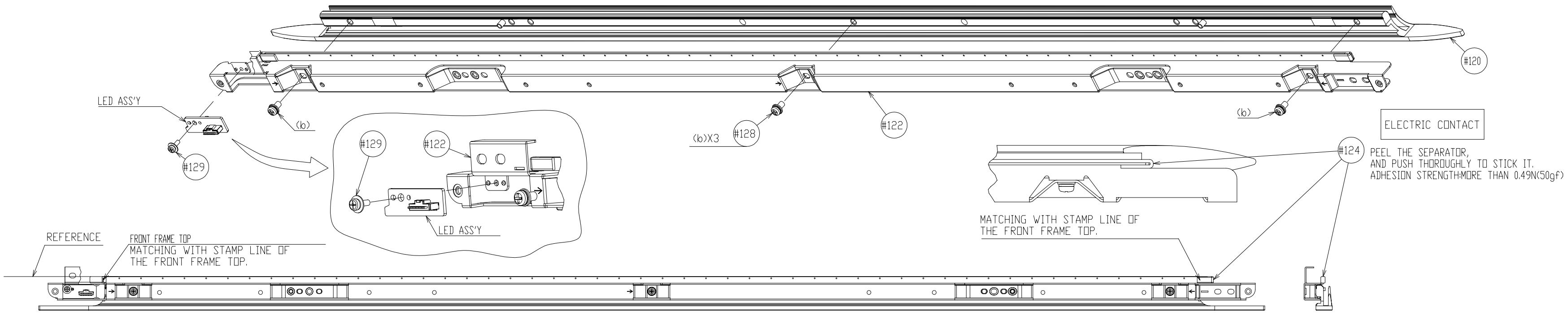

#110
(a)
(a)X3
#118
#112
(a)
REFERENCE
ELECTRIC CONTACT
#114

FRONT FRAME TOP
MATCHING WITH STAMP LINE OF
THE FRONT FRAME TOP.

FRONT FRAME TOP
MATCHING WITH STAMP LINE OF
THE FRONT FRAME TOP.

PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH
MORE THAN 0.49N(50gf)

3.DECOBAR BOTTOM ASS'Y

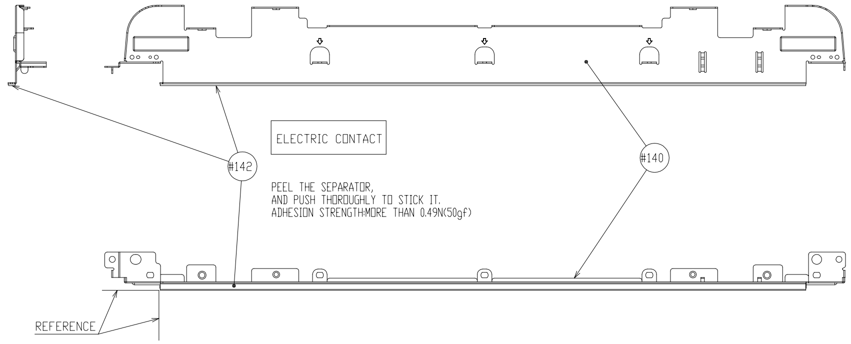

#120
LED ASS'Y
(b)
#129
#129
#122
LED ASS'Y
(b)X3
#128
#122
(b)
ELECTRIC CONTACT
#124
REFERENCE

PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH:MORE THAN 0.49N(50gf)

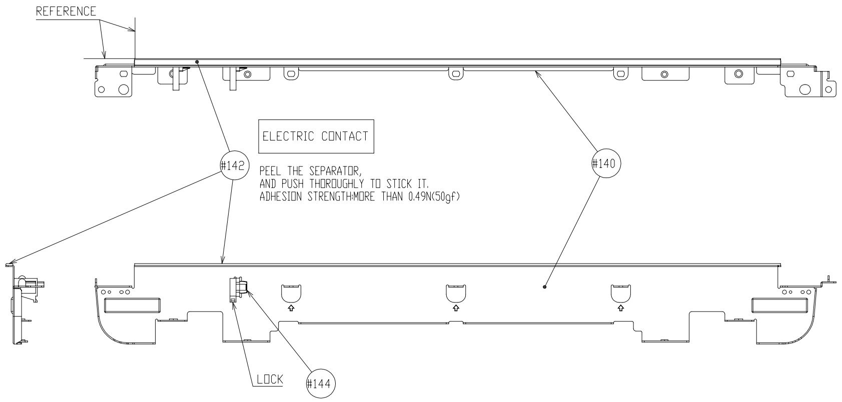
MATCHING WITH STAMP LINE OF
THE FRONT FRAME TOP.

FRONT FRAME TOP
MATCHING WITH STAMP LINE OF
THE FRONT FRAME TOP.

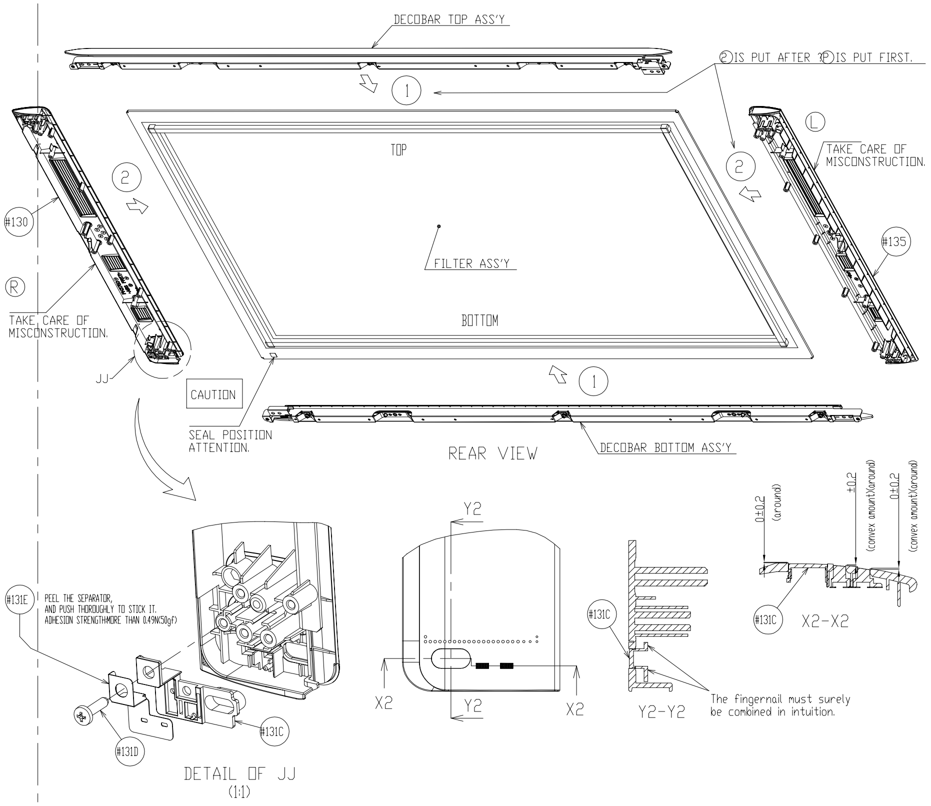
4-1.FRONT FRAME SIDE ASS'Y (L)

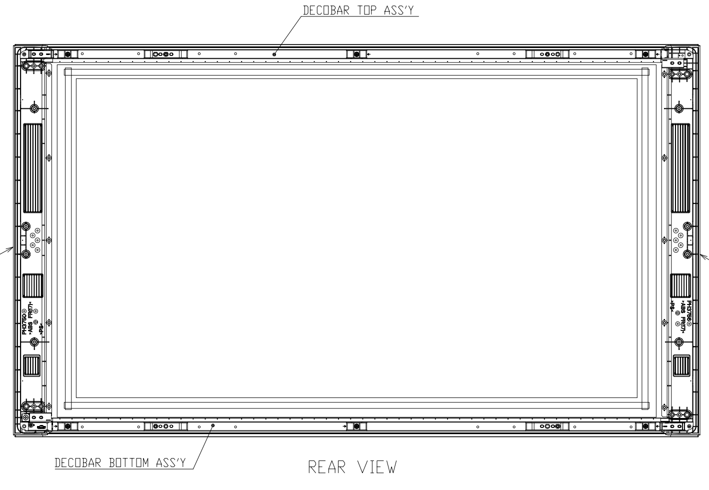

ELECTRIC CONTACT
#142
#140
PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH:MORE THAN 0.49N(50gf)
REFERENCE

4-2.FRONT FRAME SIDE ASS'Y (R)


REFERENCE
ELECTRIC CONTACT
#142
#140
PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH:MORE THAN 0.49N(50gf)
LOCK
#144

5.BEZEL ASS'Y-1

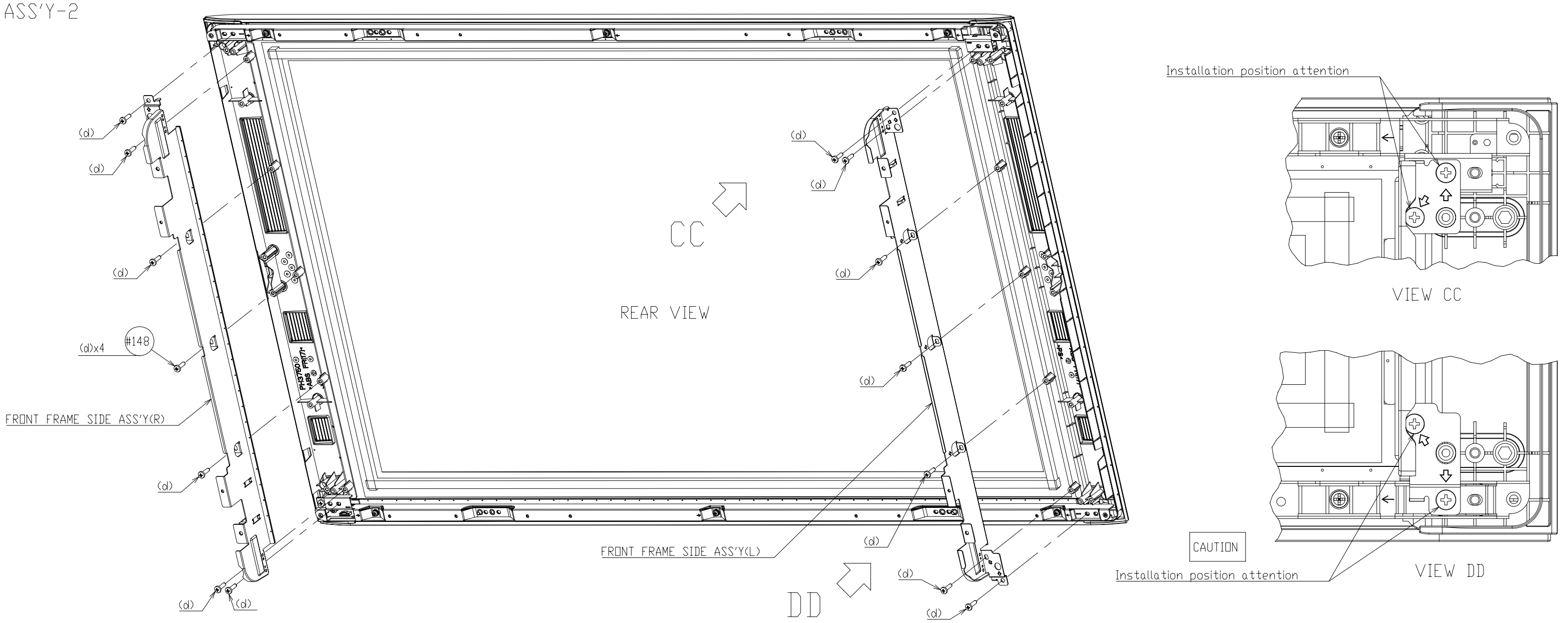

DECOBAR TOP ASS'Y
② IS PUT AFTER ① IS PUT FIRST.
①
②
Ⓛ
Ⓡ
TAKE CARE OF MISCONSTRUCTION.
#130
#135
TOP
FILTER ASS'Y
BOTTOM
TAKE CARE OF MISCONSTRUCTION.
JJ
CAUTION
SEAL POSITION ATTENTION.
REAR VIEW
DECOBAR BOTTOM ASS'Y
#131E
PEEL THE SEPARATOR,
AND PUSH THOROUGHLY TO STICK IT.
ADHESION STRENGTH:MORE THAN 0.49N(50gf)
#131D
#131C
DETAIL OF JJ
(1:1)
Y2
X2
Y2
X2
#131C
Y2-Y2
The fingernail must surely be combined in intuition.
0±0.2 (around)
±0.2 (convex amount)(around)
0±0.2 (convex amount)(around)
#131C
X2-X2


DECOBAR TOP ASS'Y
#130
#135
DECOBAR BOTTOM ASS'Y
REAR VIEW

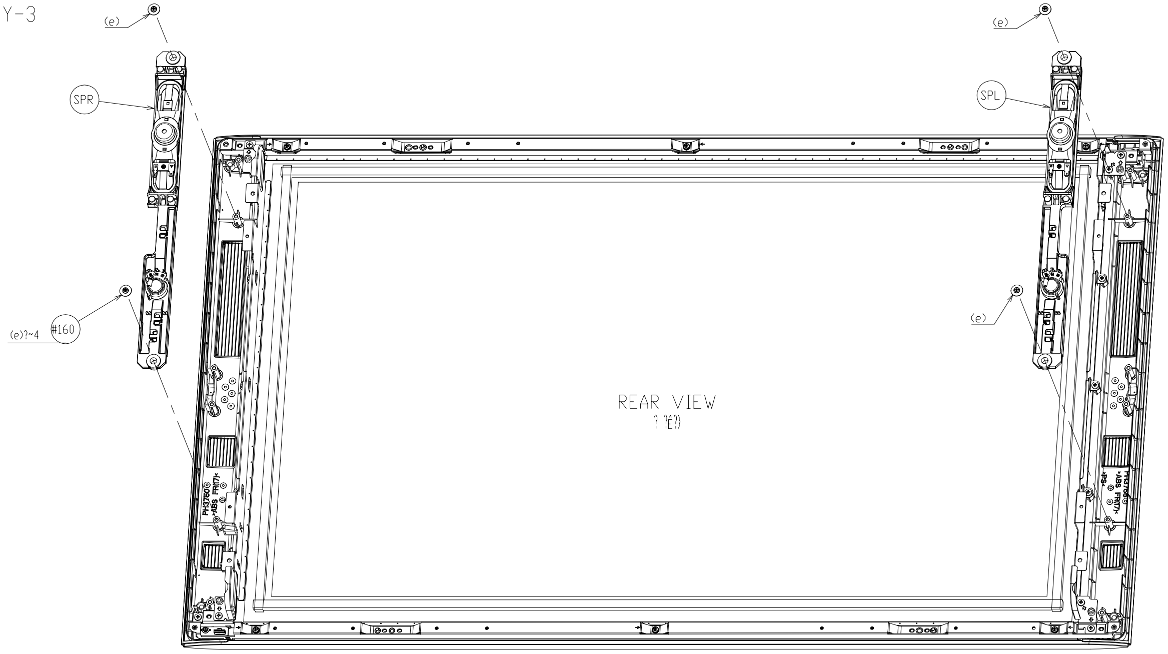
SYM.	P#	DESCRIPTION
#130	PH37592	DW2 42SP HDS R ASSY
#130	PH37593	DW2 42SP HDTX R ASSY
#131C	PH38251	DW2 LED LENS
#131D	MJ03568	SCRW T2D_4*16BD+SWCH16-18A
#131E	ME05181	DW2P LED INSULATOR
#135	PH37603	DW2 42SP HDS L ASSY
#135	PH37604	DW2 42SP HDTX L ASSY
#140	NA81121	DW2 42 F FRAME SIDE
#142	MF02022	GASKET 6-3-533 J1G
#144	NJ02902	LOCK WIRE SDL LWSS1N

6.BEZEL ASS'Y-2

SYM.	P#	DESCRIPTION
#148	MJ03568	SCRW T2D_4*16BD+SWCH16-18A
#160	MJ04013	SCRW T2B_4*16PZ+
#161	MS01384	DW2 SP HRN

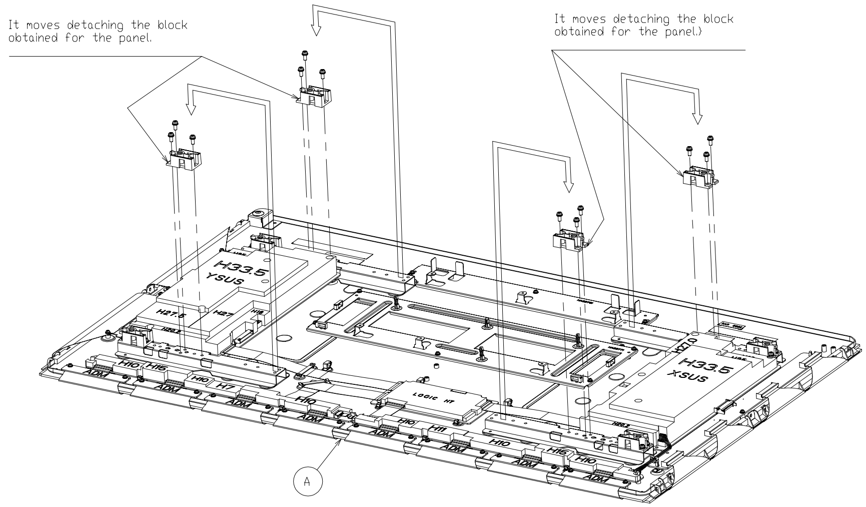

(d)
(d)
(d)
(d)x4
#148
FRONT FRAME SIDE ASS'Y(R)
(d)
(d)
(d)
CC
REAR VIEW
(d)
(d)
(d)
(d)
FRONT FRAME SIDE ASS'Y(L)
(d)
(d)
(d)
(d)
DD
Installation position attention
VIEW CC
CAUTION
Installation position attention
VIEW DD

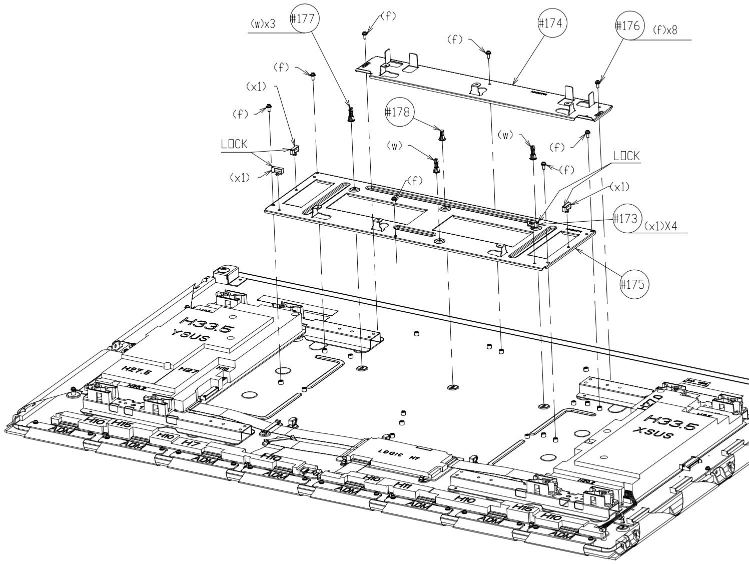
7.BEZEL ASS'Y-3


(e)
SPR
(e)?~4
#160
(e)
SPL
(e)
REAR VIEW
? ?Ê?)

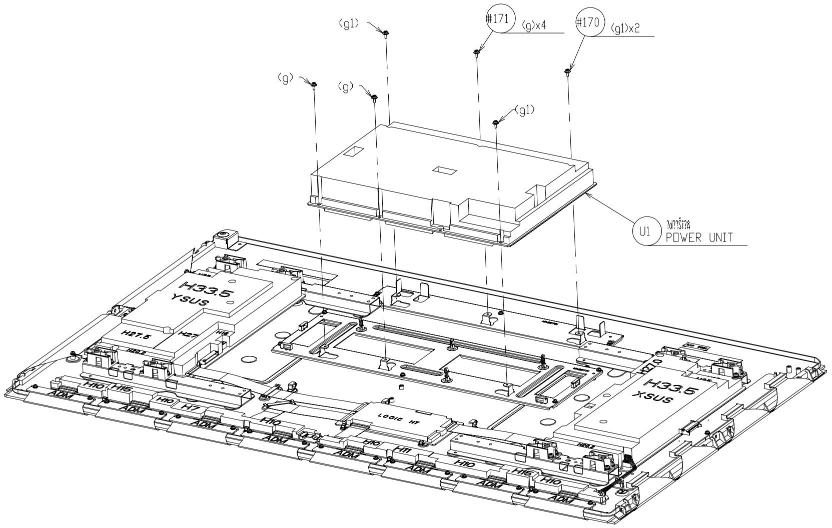
FINAL ASSEMBLY GUIDE

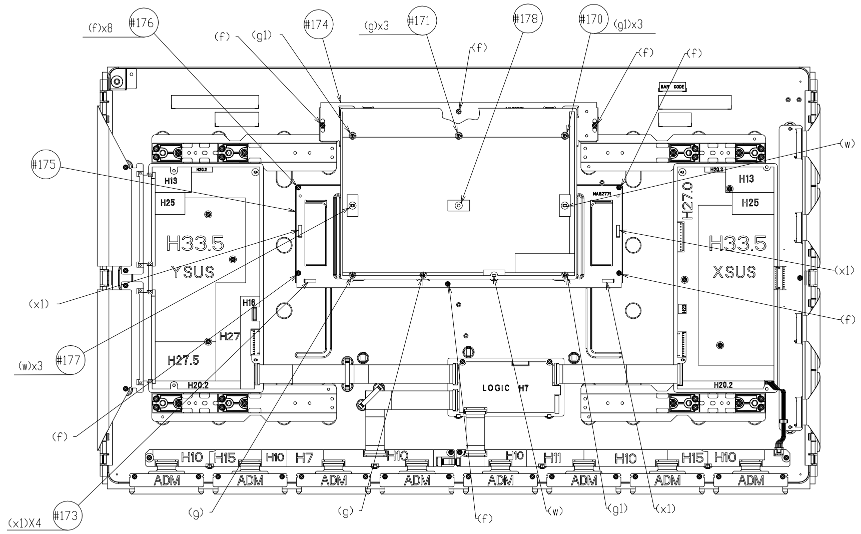
SYM.	P#	DESCRIPTION
#165	9449545W	NITTO TAPE NO.5 W20 (BLACK)
#170	MJ03963	SCRW M3E 3*8PN+LSK
#171	MJ03598	SCRW M3M_3*8PN+SM
#173	ML02731	WIRE CLAMP WSLT-3.5-2-1-19
#174	NA82781	DW2_POW_PWB_MTL_T_ST
#175	NA82771	DW2_POW_PWB_MTL_B_ST
#176	MJ03598	SCRW M3M_3*8PN+SM
#177	ML02241	LOCKING CARD SPACER
#178	ML02281	CARD SPACER KGPS 12


It moves detaching the block obtained for the panel.
It moves detaching the block obtained for the panel.)
H33.5
YSUS
H33.5
XSUS
LOGIC H7
H27.5
H10
H15
H7
ADM
A


(w)x3
#177
(f)
#174
#176
(f)x8
(f)
(x1)
(f)
LOCK
(x1)
#178
(w)
(w)
(f)
(f)
LOCK
(x1)
#173
(x1)X4
#175
H33.5
YSUS
H33.5
XSUS
LOGIC H7

10.POW UNIT ASS'Y-2


(g1)
#171
(g)x4
#170
(g1)x2
(g)
(g)
(g1)
U1
POWER UNIT
H33.5
YSUS
H33.5
XSUS
LOGIC H7


(f)x8
#176
(f)
(g1)
#174
(g)x3
#171
#178
#170
(g1)x3
(f)
(f)
(f)
#175
(w)
H13
H25
H33.5
YSUS
H27.0
H13
H25
H33.5
XSUS
(x1)
(x1)
(f)
(w)x3
#177
H16
H27
H27.5
H20.2
LOGIC H7
H20.2
(f)
H10
H15
H7
H11
ADM
(x1)X4
#173
(g)
(g)
(f)
(w)
(g1)
(x1)

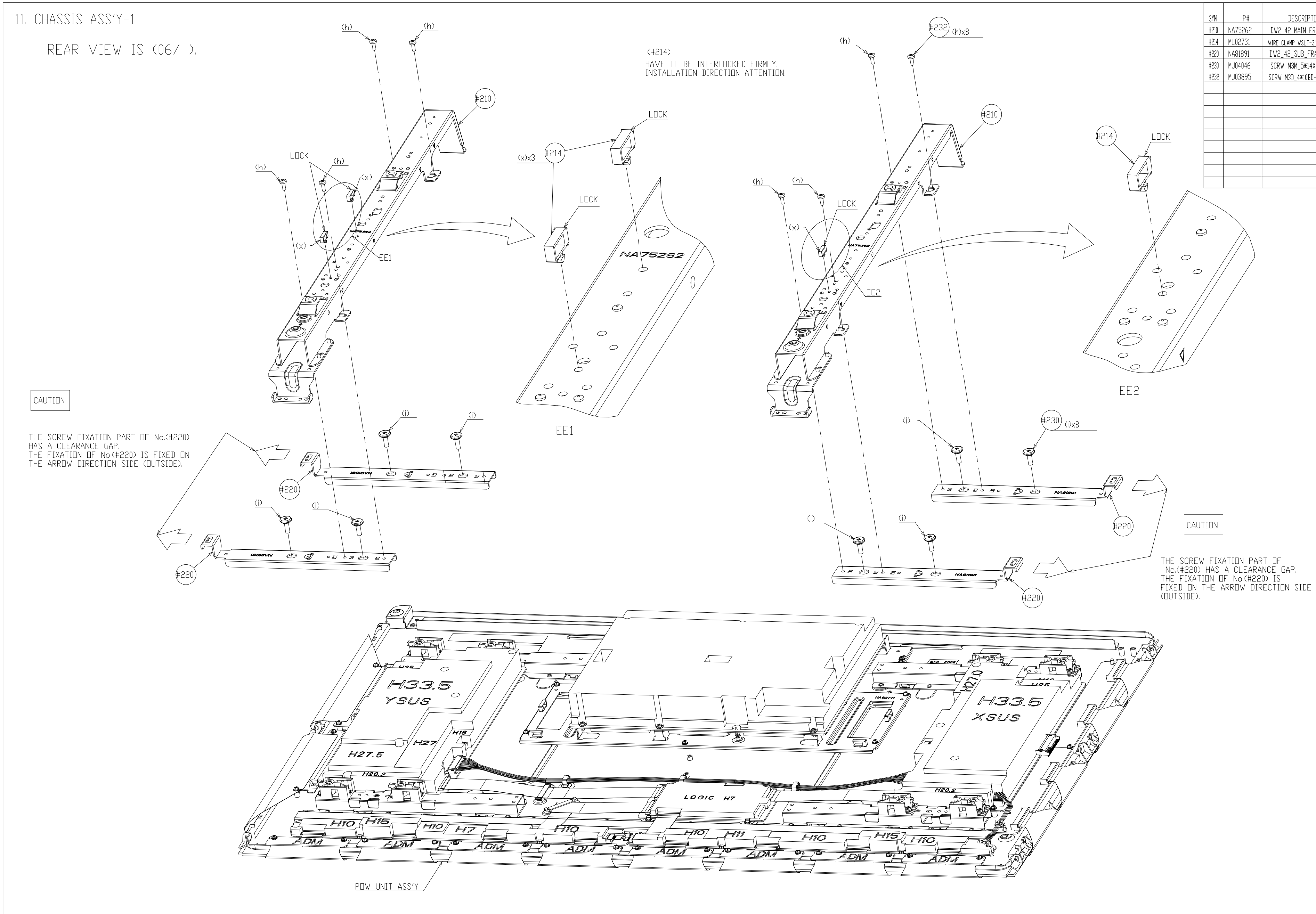
POW UNIT ASS'Y-1,2,3
REAR VIEW

FINAL ASSEMBLY GUIDE

11. CHASSIS ASS'Y-1

REAR VIEW IS (06/).

SYM.	P#	DESCRIPTION
#210	NA75262	DW2 42 MAIN FRAME
#214	ML02731	WIRE CLAMP WSLT-3.5-2-1-19
#220	NA81891	DW2_42_SUB_FRAME
#230	MJ04046	SCRW M3M_5*14X+
#232	MJ03895	SCRW M3D_4*10BD+SWCH8A


(h)
(h)
#210
LOCK
(h)
(h)
(x)
(x)
EE1
(x)x3
#214
LOCK
LOCK
NA75262
EE1
#232
(h)x8
(h)
(h)
(h)
#210
LOCK
(x)
EE2
#214
LOCK
EE2
CAUTION
(i)
(i)
#220
(i)
(i)
#220
(i)
#230
(i)x8
#220
(i)
(i)
#220
CAUTION
H33.5
YSUS
H27
H27.5
H20.2
H18
H25
H33.5
XSUS
H27.0
H25
H20.2
BAR CODE
LOGIC H7
H10
H15
H10
H7
H10
H10
H11
H10
H15
H10
ADM
ADM
ADM
ADM
ADM
ADM
ADM
ADM
POW UNIT ASS'Y

(#214)
HAVE TO BE INTERLOCKED FIRMLY.
INSTALLATION DIRECTION ATTENTION.

CAUTION

THE SCREW FIXATION PART OF No.(#220) HAS A CLEARANCE GAP. THE FIXATION OF No.(#220) IS FIXED ON THE ARROW DIRECTION SIDE (OUTSIDE).

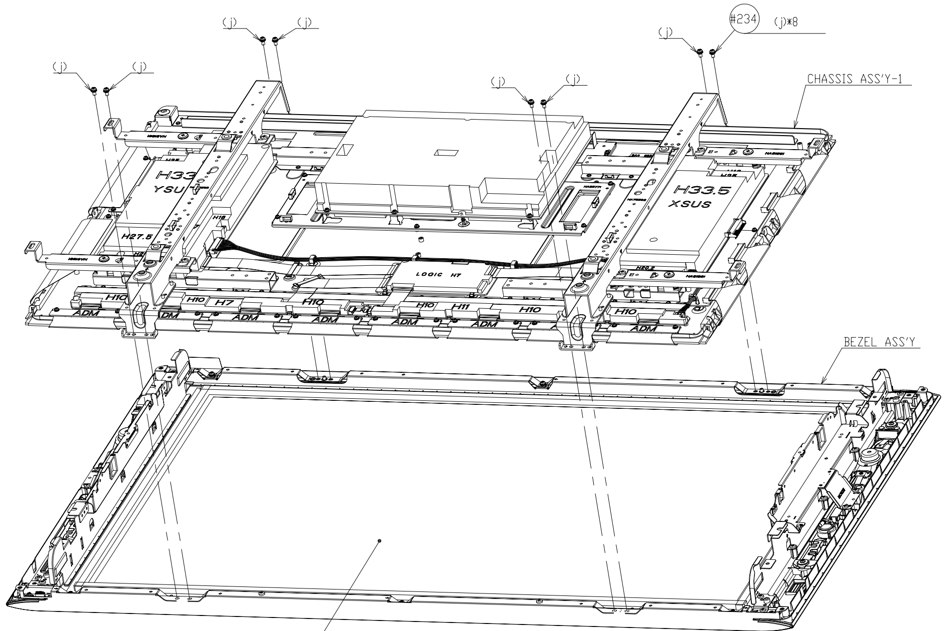
CAUTION

THE SCREW FIXATION PART OF No.(#220) HAS A CLEARANCE GAP. THE FIXATION OF No.(#220) IS FIXED ON THE ARROW DIRECTION SIDE (OUTSIDE).

FINAL ASSEMBLY GUIDE

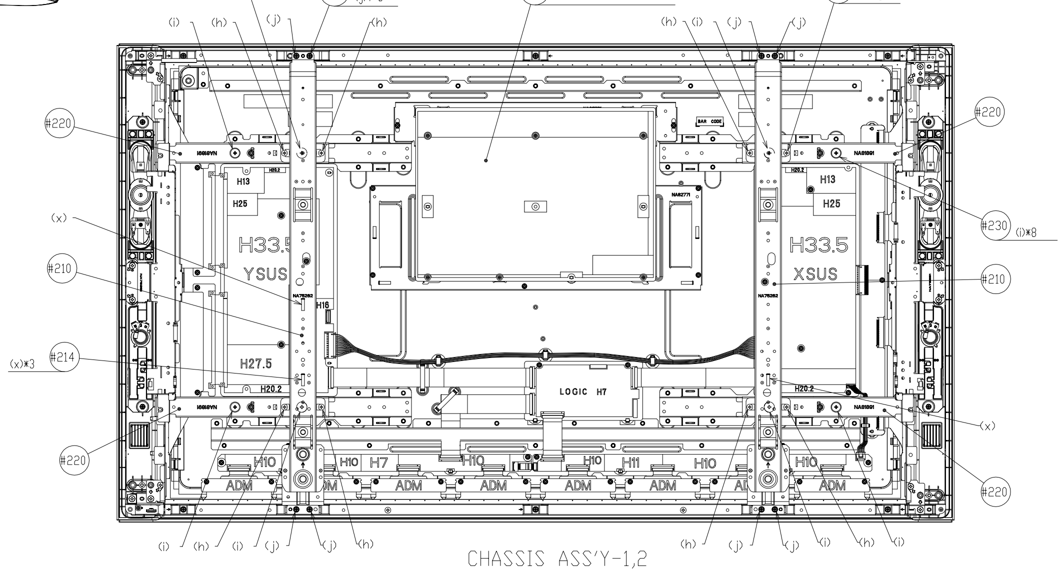
CHASSIS ASS'Y-2
CHASSIS ASS'Y,BEZEL ASS'Y

SYM.	P#	DESCRIPTION
#210	NA75262	DW 42 MAIN FRAME
#214	ML02731	WIRE CLAMP
#220	NA81891	DW2 42 SUB FRAME
#230	MJ04046	SCREW M3M 5*14
#232	MJ03895	SCREW M3D 4*10
#234	MJ03618	SCREW M3M 4*12
U1	HA01731	POWER UNIT


(j)
(j)
(j)
(j)
#234
(j)*8
(j)
(j)
(j)
(j)
CHASSIS ASS'Y-1
H33.5
YSUS
H33.5
XSUS
H27.5
LOGIC H7
H10
H7
H11
ADM
BEZEL ASS'Y

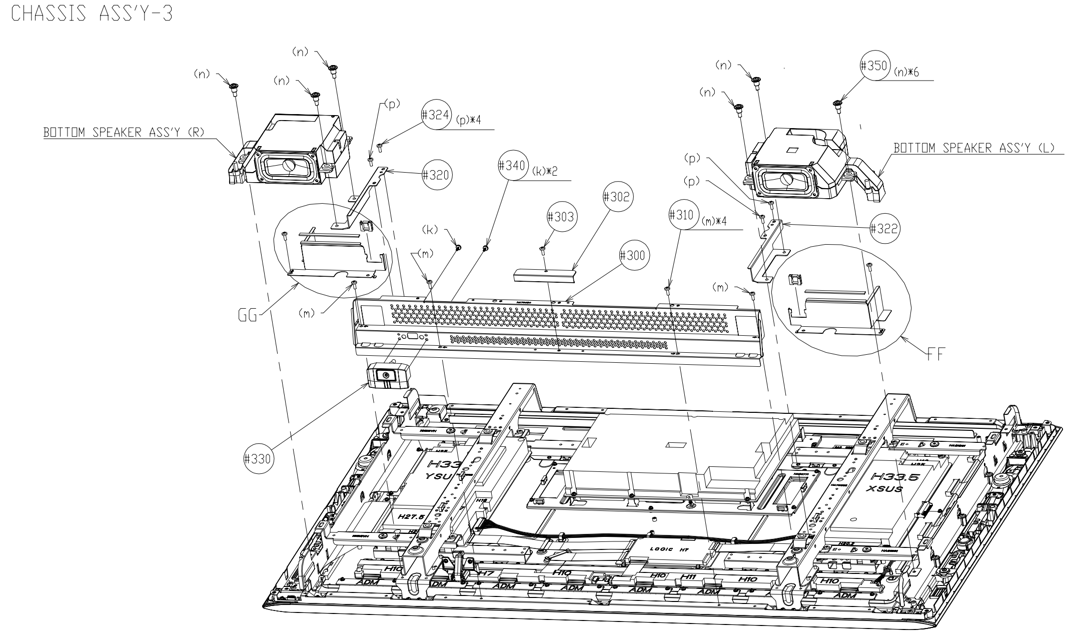
CAUTION

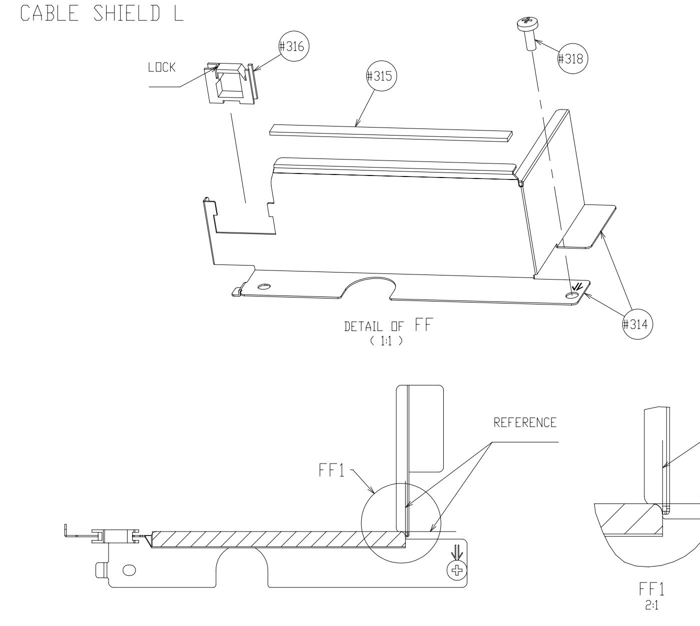
THER SHOULD BE NO DUST AND SO ON BETWEEN (#0800) AND "PDP MODULE".
(AIR SPRAYING)


(i)
#234
(j)*8
U1
POWER UNIT ASS'Y
#232
(h)*8
(i)
(h)
(j)
(h)
(h)
(i)
(j)
(j)
#220
#220
#230
(i)*8
(x)
#210
#210
(x)*3
#214
(x)
#220
#220
H13
H25
H33.5
YSUS
H27.5
H20.2
H16
H13
H25
H33.5
XSUS
H20.2
LOGIC H7
H10
H7
H11
ADM
(i)
(h)
(i)
(j)
(j)
(h)
(h)
(j)
(j)
(i)
(h)
(i)

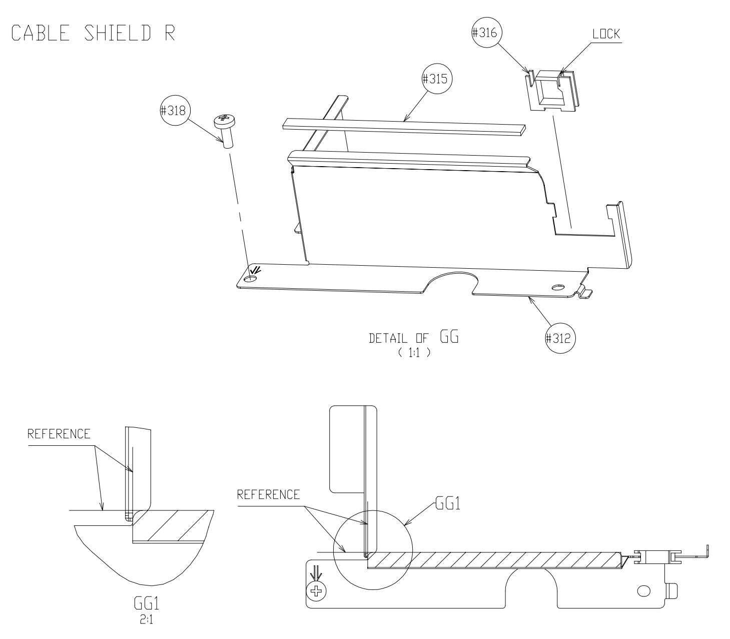
CHASSIS ASS'Y-1,2
(REAR VIEW)

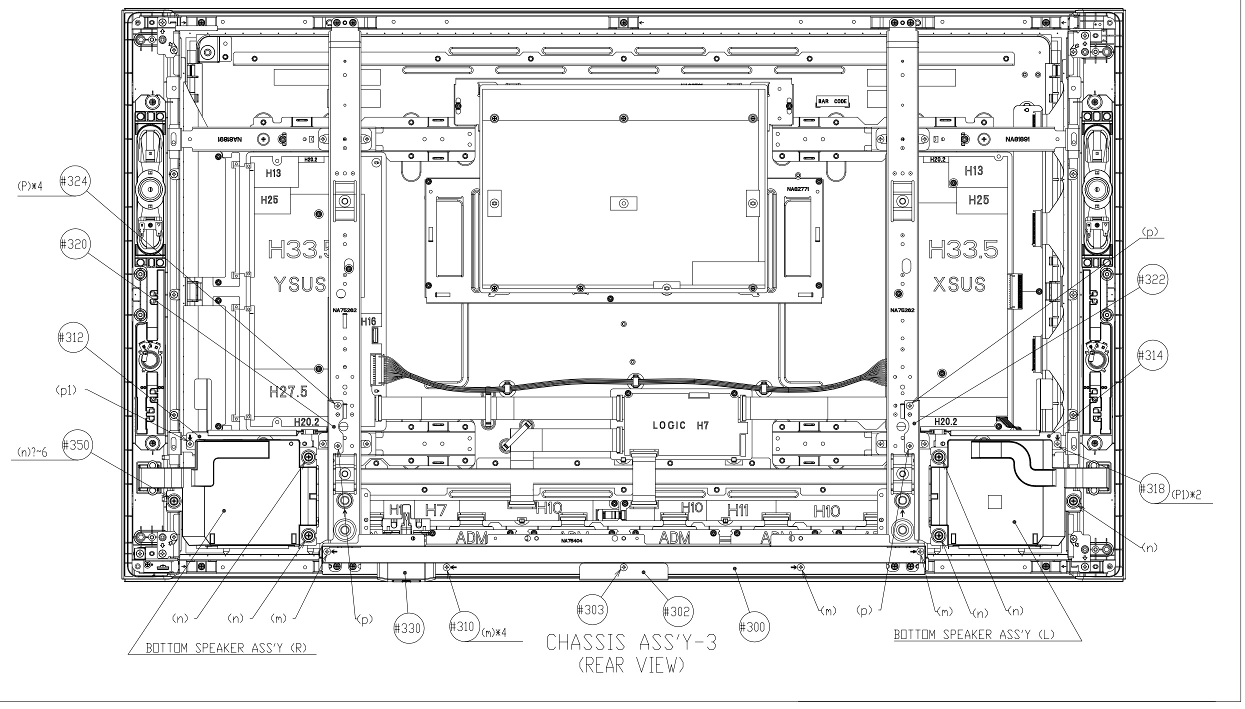
FINAL ASSEMBLY GUIDE


CHASSIS ASS'Y-3
(n)
(n)
(n)
(p)
#324 (p)*4
BOTTOM SPEAKER ASS'Y (R)
#320
#340 (k)*2
#302
#303
(k)
(m)
#300
#310 (m)*4
(n)
(n)
#350 (n)*6
(p)
(p)
BOTTOM SPEAKER ASS'Y (L)
#322
(m)
GG
(m)
FF
#330
H33 YSU
H27.5
H33.5 XSUS
LOGIC H7
H10
H11
H7
ADM

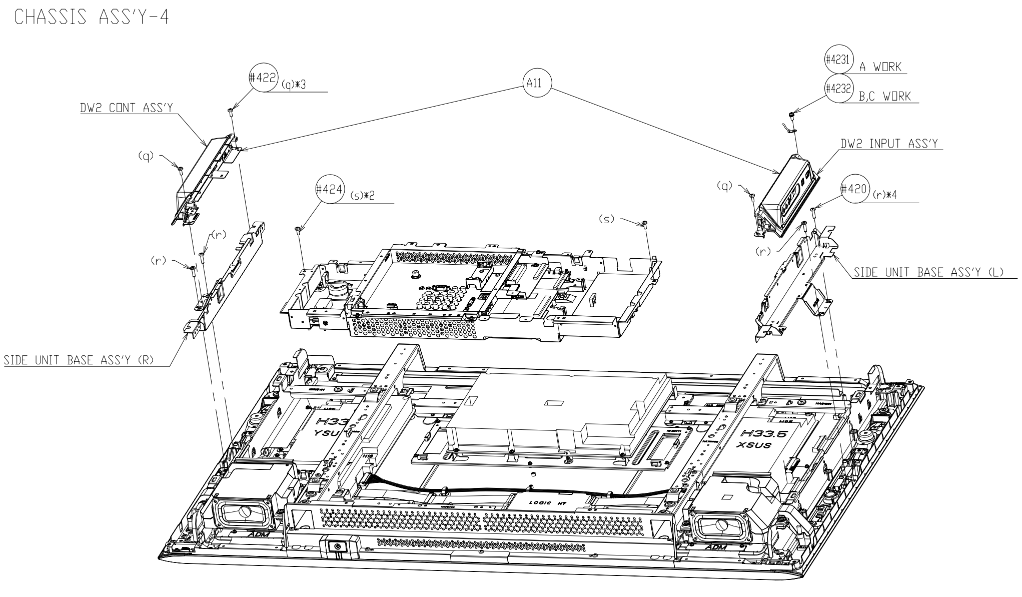

CABLE SHIELD L
LOCK
#316
#315
#318
#314
DETAIL OF FF
(1:1)
REFERENCE
REFERENCE
FF1
FF1
2:1

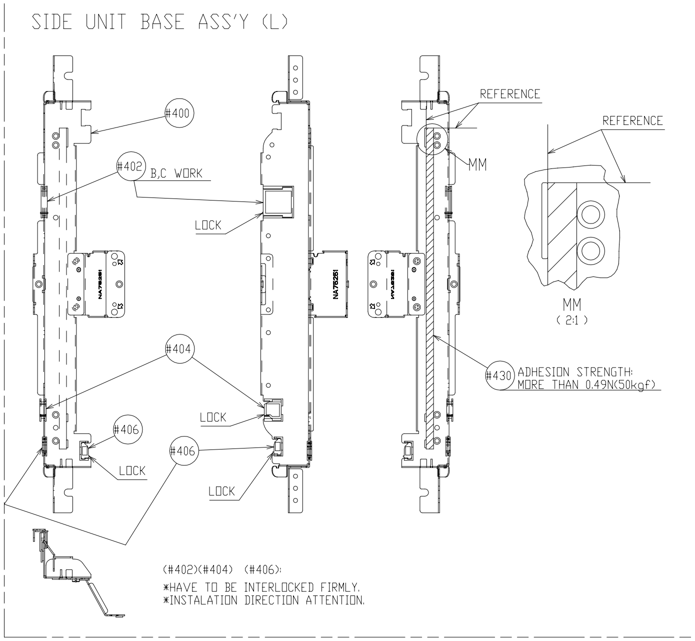
SYM.	P#	DESCRIPTION
#300	NA75404	DW2P BOTTOM COVER
#302	NX31041	DW2 ST BARRIER 42P
#303	MJ03895	SCREW M3D_4*10
#310	MJ03895	SCREW M3D_4*10
#312	NA82823	DW2 42C SHIELD R-US
#314	NA82824	DW2 42C SHIELD L-US
#315	MF02023	GASKET 6-3-100 J1G
#316	ML02062	EDG SADDLE 1710L
#318	MJ03895	SCREW M3D_4*10
#320	NA81911	DW2 42 SPK HOLDER R
#322	NA81912	DW2 42 SPK HOLDER L
#324	MJ03895	SCREW M3D_4*10
#330	PC06501	POWER BUTTON ASS'Y
#340	MJ03733	SCREW T2B_3*10
#350	MJ03959	SCREW M3S 5*17
SPBL	GM01721	BOTTOM SP L
SPBR	GM01712	BOTTOM SP R


CABLE SHIELD R
#316
LOCK
#315
#318
DETAIL OF GG
(1:1)
#312
REFERENCE
REFERENCE
GG1
GG1
2:1

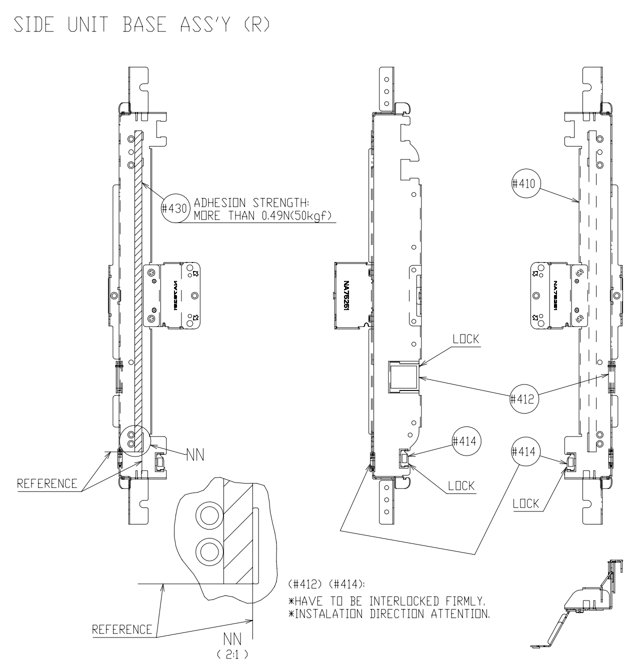

(P)*4
#324
#320
#312
(p1)
(n)?~6
#350
(n)
(n)
(m)
(p)
#330
#310 (m)*4
#303
#302
#300
(m)
(p)
(m)
(n)
(n)
(p)
#322
#314
#318 (P1)*2
(n)
BOTTOM SPEAKER ASS'Y (R)
BOTTOM SPEAKER ASS'Y (L)
H33.5 YSUS
H33.5 XSUS
H13
H25
H27.5
H20.2
H16
LOGIC H7
H10
H11
H7
ADM
BAR CODE
CHASSIS ASS'Y-3
(REAR VIEW)

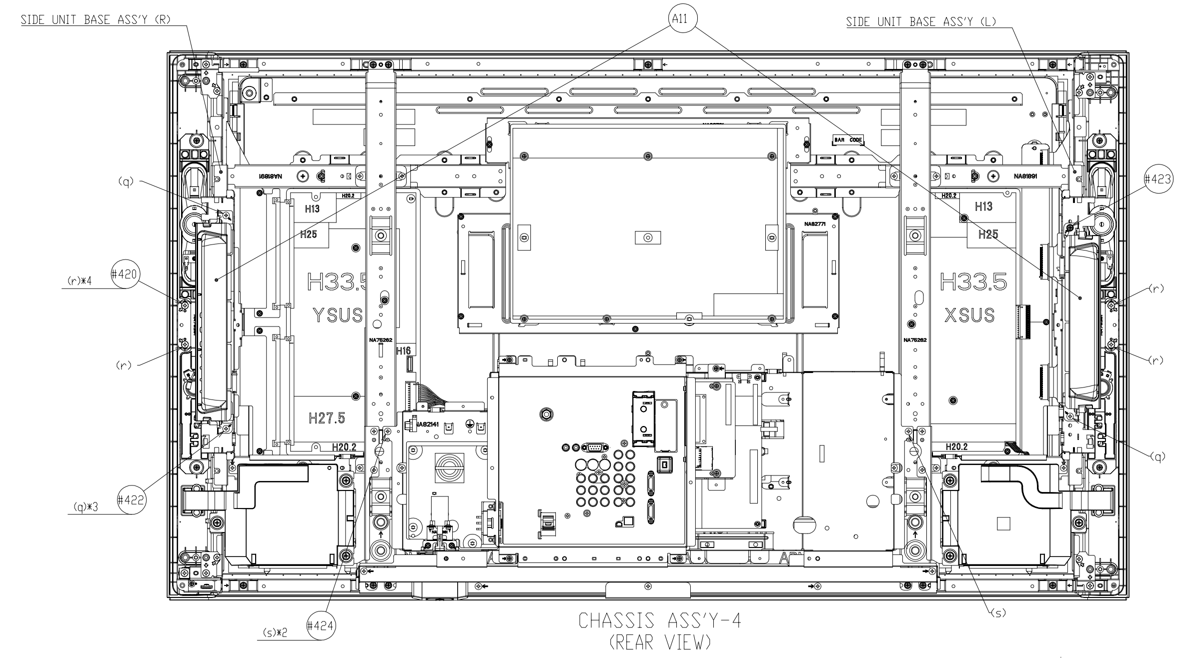
FINAL ASSEMBLY GUIDE


CHASSIS ASS'Y-4
#422 (q)*3
DW2 CONT ASS'Y
A11
#4231 A WORK
#4232 B,C WORK
DW2 INPUT ASS'Y
(q)
(r)
#424 (s)*2
(s)
#420 (r)*4
SIDE UNIT BASE ASS'Y (L)
SIDE UNIT BASE ASS'Y (R)
H33.5 YSUS
H33.5 XSUS
LOGIC HF


SIDE UNIT BASE ASS'Y (L)
#400
#402 B,C WORK
LOCK
REFERENCE
MM
MM (2:1)
#404
#406
#430 ADHESION STRENGTH: MORE THAN 0.49N(50kgf)
LOCK
(#402)(#404) (#406):
*HAVE TO BE INTERLOCKED FIRMLY.
*INSTALATION DIRECTION ATTENTION.

SYM.	P#	DESCRIPTION
#400	NA75251	42 SIDEUNIT BASE
#402	ML02061	EDG SADDLE 1720L
#404	ML01081	WIRE CLAMP
#406	ML01082	WIRE CLAMP
#410	NA75253	42 SIDEUNIT BASE
#412	ML02061	EDG SADDLE 1720L
#414	ML01082	WIRE CLAMP
#420	MJ03568	SCREW T2D_4*16
#422	MJ03895	SCREW M3D_4*10
#4231	MJ03895	SCREW M3D_4*10
#4232	MJ04039	SCREW M3E 4*10
#424	MJ04039	SCREW M3E 4*10
#430	MF02024	GASKET 6-1-265 JIG
A11	UE26051	DW2A CHASSIS ASSY
A12	UE26052	DW2B CHASSIS ASSY
A13	UE26053	DW2C CHASSIS ASSY


SIDE UNIT BASE ASS'Y (R)
#430 ADHESION STRENGTH: MORE THAN 0.49N(50kgf)
#410
LOCK
#412
#414
LOCK
NN
REFERENCE
NN (2:1)
(#412) (#414):
*HAVE TO BE INTERLOCKED FIRMLY.
*INSTALATION DIRECTION ATTENTION.


SIDE UNIT BASE ASS'Y (R)
A11
SIDE UNIT BASE ASS'Y (L)
(q)
#423
(r)*4 #420
(r)
(q)*3 #422
(s)*2 #424
(s)
H13
H25
H33.5 YSUS
H33.5 XSUS
H16
H27.5
H20.2
CHASSIS ASS'Y-4 (REAR VIEW)

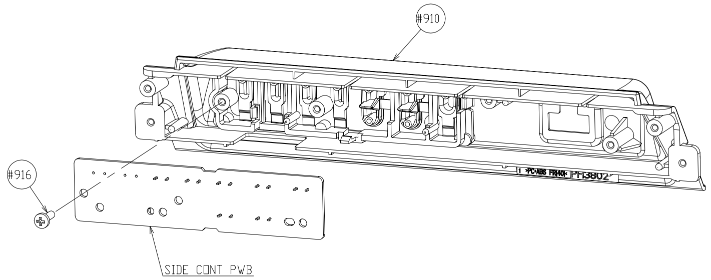
FINAL ASSEMBLY GUIDE

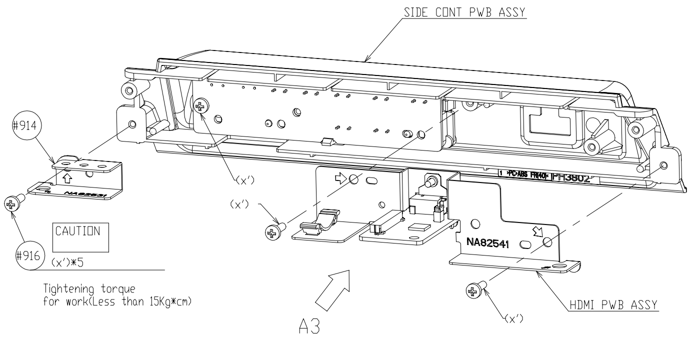
DW2U

SYM.	P#	DESCRIPTION
#9301	PH38055	SIDE INPUT CASE HDS
#9302	PH38056	SIDE INPUT CASE HDT,HDX
#938	NA82561	DW2 SIDE INPUT BKT U
#942	ML01252	WIRE CLAMP

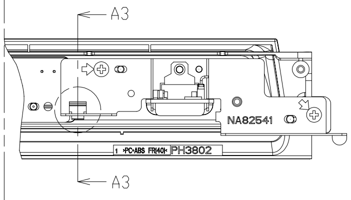
SIDE CONT UNIT ASS'Y

SIDE CONT PWB ASSY

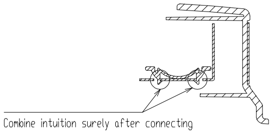

#910
#916
1 >PC+ABS FR(40)< PH3802
SIDE CONT PWB


SIDE CONT PWB ASSY
#914
#916
(x')
(x')
(x')
NA82541
1 >PC+ABS FR(40)< PH3802
HDMI PWB ASSY
A3

CAUTION
(x')*5
Tightening torque
for work(Less than 15Kg*cm)

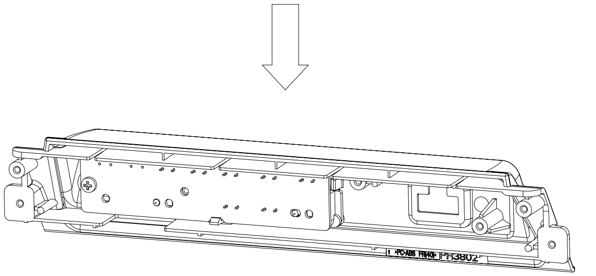

A3
NA82541
1 >PC+ABS FR(40)< PH3802
A3

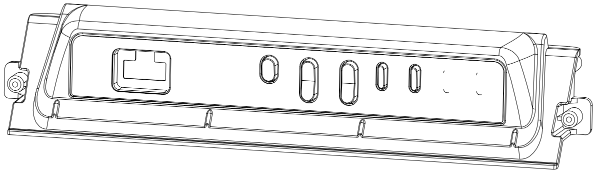
VIEW A3



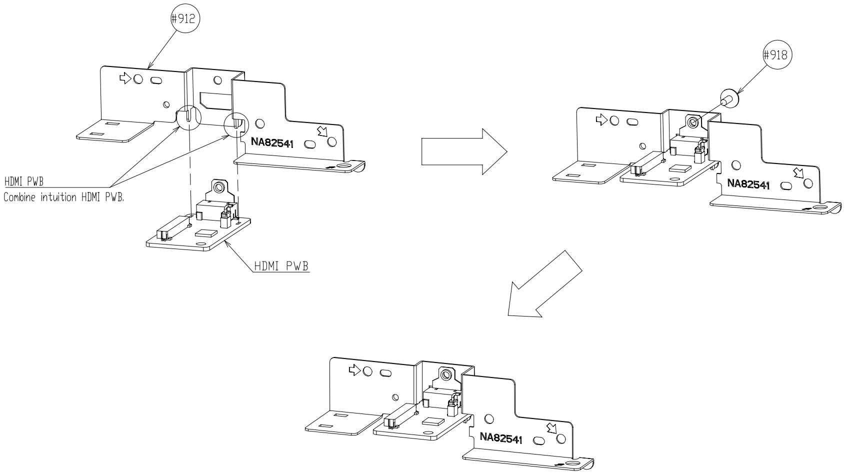
Combine intuition surely after connecting the flat cable.

A3-A3


1 >PC+ABS FR(40)< PH3802



HDMI PWB ASSY

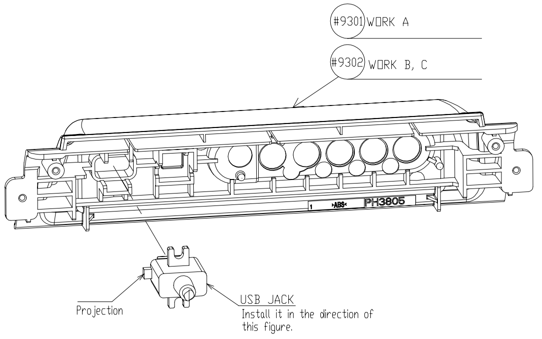

#912
#918
NA82541
NA82541
NA82541
HDMI PWB

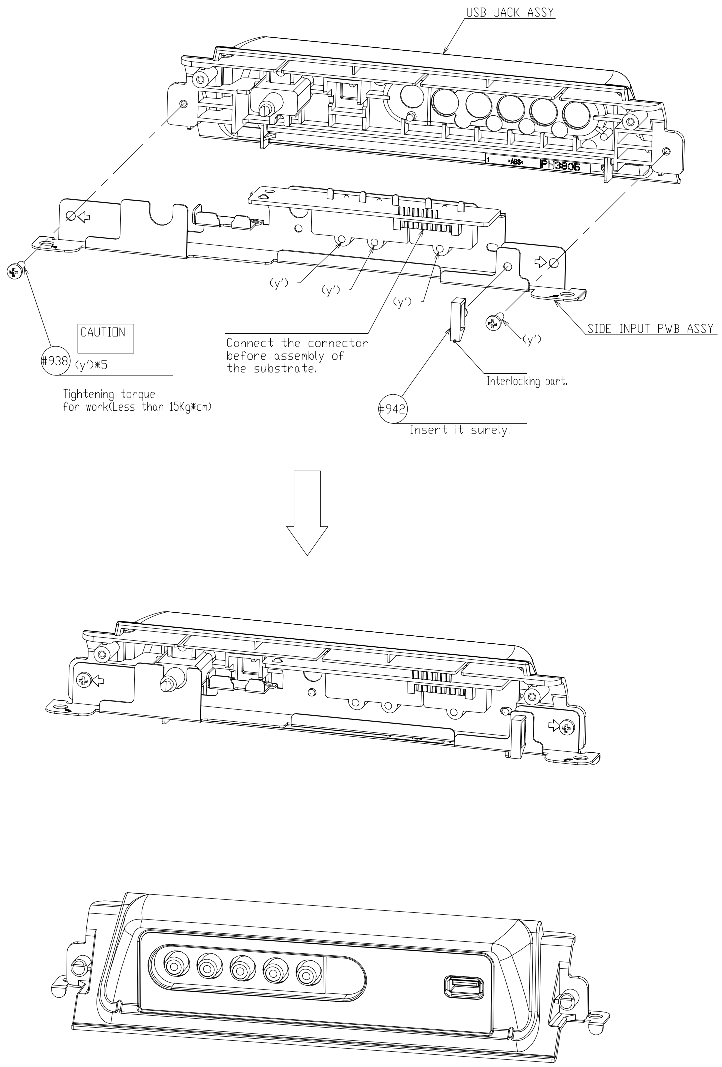
HDMI PWB
Combine intuition HDMI PWB.

SYM.	P#	DESCRIPTION
#9101	PH38024	DW2 SIDE CONTROL CASE
#9102	PC06751	DW2 CONTROL KEY
#912	NA82541	DW2 HDMI HOLD MTL
#914	NA82531	DW2 SIDE CONT BRKT
#916	MJ03733	SCREW T2B_3*10
#918	MJ03963	SCREW M3E 3*8
#920	ML02021	FLAT CLAMPER 15

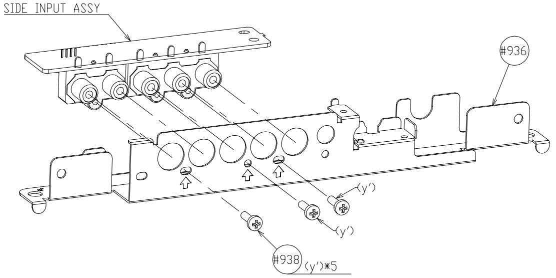
SIDE INPUT UNIT ASS'Y

USB JACK ASSY


#9301 WORK A
#9302 WORK B, C
ABS PH3805
Projection
USB JACK
Install it in the direction of this figure.


USB JACK ASSY
ABS PH3805
(y')
(y')
(y')
(y')
SIDE INPUT PWB ASSY
CAUTION
#938 (y')*5
Tightening torque for work(Less than 15Kg*cm)
Connect the connector before assembly of the substrate.
Interlocking part.
#942
Insert it surely.

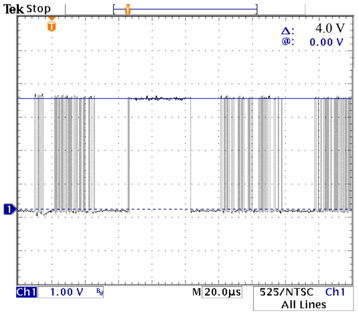
SIDE INPUT PWB ASSY


SIDE INPUT ASSY
#936
(y')
(y')
#938 (y')*5

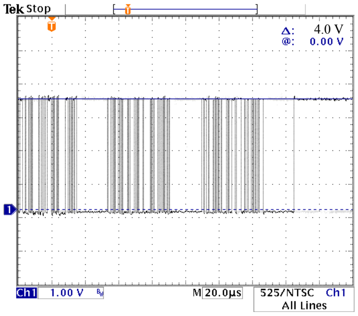
WAVEFORMS

Numbers inside circle correspond to locations shown in the circuit diagram. Waveforms taken using a Color Bar signal with H sync 31 khz and V. sync 60 hz and a X10 probe.
Signal amplitude and DC level shown at Δ and @ respectively.

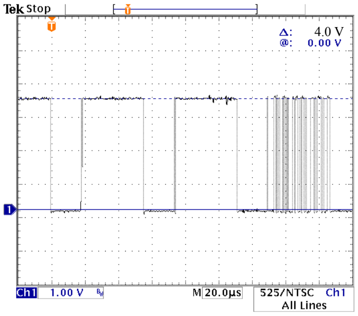
① IT02 Pin 41 MPEG-DATA 0



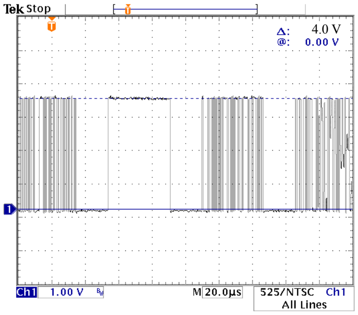
② IT02 Pin 42 MPEG-DATA 1



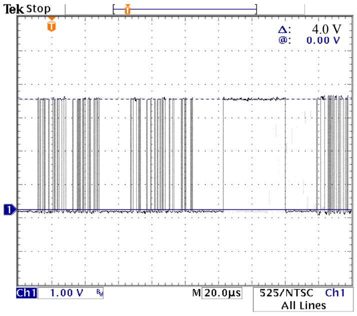
③ IT02 Pin 47 MPEG-DATA 2



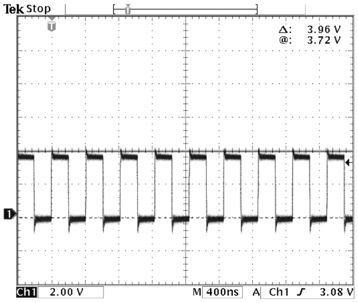
④ IT02 Pin 48 MPEG-DATA 3



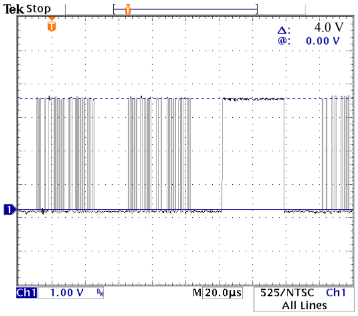
⑤ IT02 Pin 50 MPEG-DATA 4



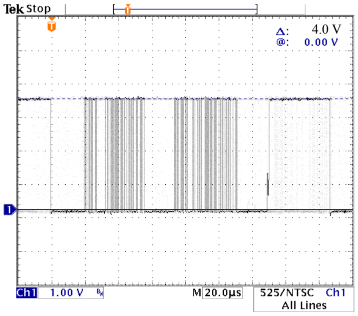
⑥ IT02 Pin 51 MPEG-CLK



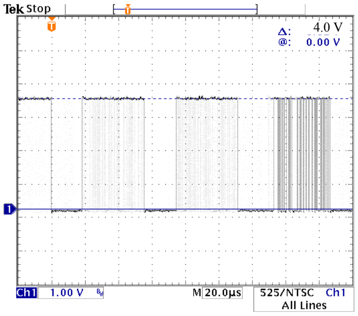
⑦ IT02 Pin 54 MPEG-DATA 5



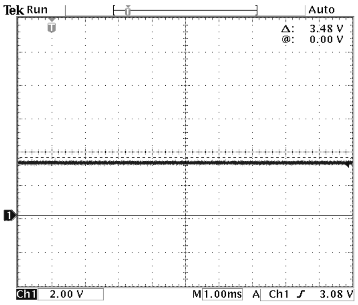
⑧ IT02 Pin 57 MPEG-DATA 6



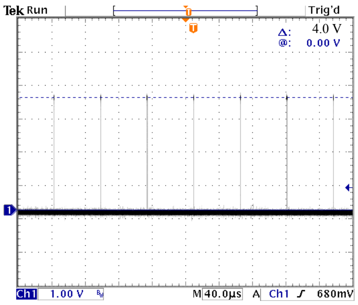
⑨ IT02 Pin 59 MPEG-DATA 7/SER_DATA



⑩ IT02 Pin 63 MPEG_DATA EN



⑪ IT02 Pin 66 MPEG_PKT_SYNC



SUBDIGITAL PWB
QAM/VSB DEMODULATOR

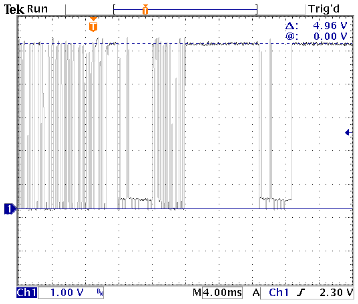
click here to go to circuit diagram

TABLE OF CONTENTS

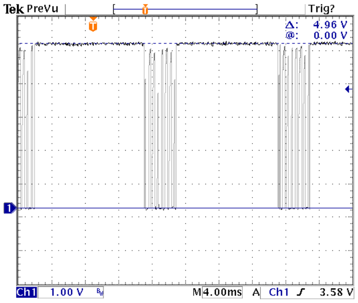
WAVEFORMS

Numbers inside circle correspond to locations shown in the circuit diagram. Waveforms taken using a Color Bar signal with H sync 31 khz and V. sync 60 hz and a X10 probe.
Signal amplitude and DC level shown at Δ and @ respectively.

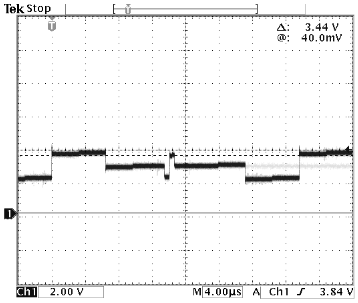
⑫ I001 Pin 44 DATA



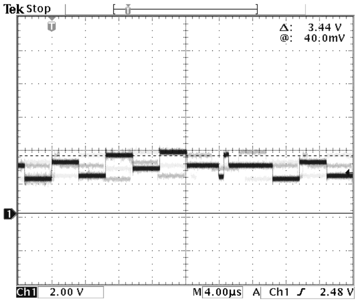
⑬ I001 Pin 45 CLK



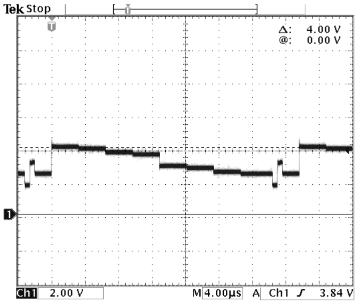
⑭ I001 Pin 30 P_R OUT 1



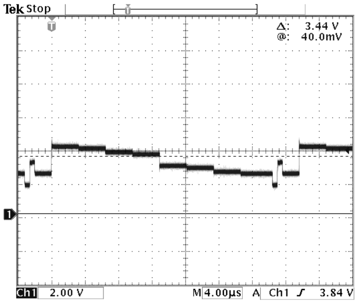
⑮ I001 Pin 29 P_B OUT 1



⑯ I001 Pin 28 Y OUT



⑰ I001 Pin 32 SUB/Y/V OUT



SUBDIGITAL PWB
I001 AV SWITCH

click here to go to circuit diagram

DC VOLTAGES

(42" Models only)

Symbol	Pin No.	Voltage
CN63	1	5.2
	2	0
	3	3.3
	4	0
	5	3.8
	6	4.8
	7	3.1
	8	3.3

Symbol	Pin No.	Voltage
CN64	1	63.4
	2	NC
	3	5.1
	4	0
	5	0
	6	0
	7	N.C
	8	83.5
	9	83.5
	10	83.5

Symbol	Pin No.	Voltage
CN68	1	5.1
	2	0
	3	3.3
	4	0
	5	1.6
	6	1.3
	7	2.6
	8	2.6
	9	3.3

Symbol	Pin No.	Voltage
P401	1	0
	2	0

Symbol	Pin No.	Voltage
CNPPS	1	5.8
	2	5.8
	3	5.8
	4	0
	5	0
	6	0
	7	10.8
	8	0
	9	16.3
	10	0
	11	0
	12	0
	13	10.8
	14	10.8
	15	10.8

Symbol	Pin No.	Voltage
PTF	1	0
	2	0
	3	0
	4	0
	5	0
	6	0
	7	2.1
	8	2.1
	9	0
	10	0
	11	0
	12	0
	13	9

Symbol	Pin No.	Voltage
PFA1	1	6
	2	0
	3	0

Symbol	Pin No.	Voltage
PCM1	1	0
	2	4.3
	3	0
	4	4
	5	5
	6	5
	7	5.8
	8	0
	9	0
	10	3.3
	11	0

Symbol	Pin No.	Voltage
PCM2	1	0
	2	5
	3	5
	4	5
	5	0

Symbol	Pin No.	Voltage
PSPK	1	5.3
	2	5.3
	3	5.5
	4	5.5
	5	5.3
	6	5.3
	7	5.4
	8	5.4

Symbol	Pin No.	Voltage
PFA2	1	6
	2	0
	3	0

TABLE OF CONTENTS

DC VOLTAGES

(42" Models only)

Symbol	Pin No.	Voltage
IT05	1	3.3
	2	0
	3	1.3
	4	5
	5	5.8

Symbol	Pin No.	Voltage
IT11	1	4
	2	0
	3	1.3
	4	1.8
	5	3.3

Symbol	Pin No.	Voltage
IT12	1	2
	2	0
	3	1.3
	4	3.3
	5	5.8

Symbol	Pin No.	Voltage
IW02	1	0
	2	5.8
	3	0
	4	0
	5	0.15

Symbol	Pin No.	Voltage
IW03	1	1.2
	2	0
	3	0
	4	0.3
	5	2.5
	6	0
	7	0
	8	2.5

Symbol	Pin No.	Voltage
IWP2	1	3.3
	2	0
	3	1.2
	4	3.3
	5	5.8

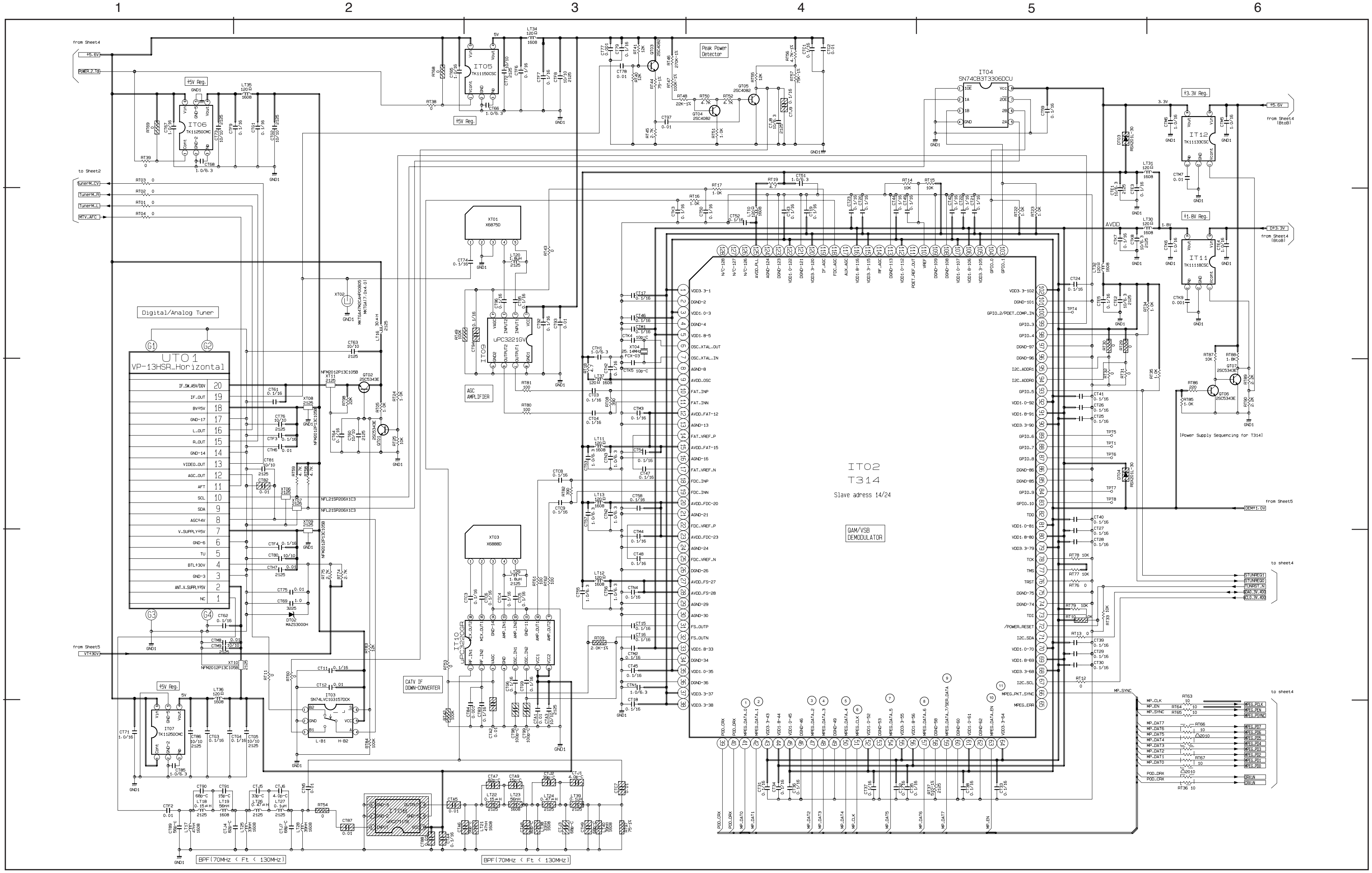
Symbol	Pin No.	Voltage
IWP1	1	2.3
	2	5.8
	3	5.8
	4	0
	5	0.5
	6	0
	7	3.3
	8	3.3
	9	0
	10	0

Symbol	Pin No.	Voltage
IW04	1	3.3
	2	0
	3	1.2
	4	2.5
	5	3.3

Symbol	Pin No.	Voltage
UT01	1	0
	2	5
	3	0
	4	1.7
	5	2.3
	6	0
	7	5
	8	1.9
	9	4.8
	10	4.8
	11	2.8
	12	1.9
	13	2.2
	14	0
	15	2.2
	16	2.2
	17	0
	18	5
	19	0
	20	5

BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
4
5
6
A
B
C
D
E
from Sheet4
to Sheet2
Digital/Analog Tuner
UT01
VP-13HSR_Horizontal
+5V Reg.
IT06
TK11250CMC
IT05
TK11150CSC
Peak Power Detector
IT04
SN74CB3T3306DCU
+3.3V Reg.
IT12
TK11133CSC
+1.8V Reg.
IT11
TK11118CSC
XT01
X6875D
XT03
X6880D
IT09
uPC3221GV
AGC AMPLIFIER
IT10
uPC3220GR
CATV IF DOWN-CONVERTER
IT03
SN74LVC1G3157DCK
IT07
TK11250CMC
IT08
IT02
T314
Slave adress 14/24
QAM/VSB DEMODULATOR
[Power Supply Sequencing for T314]
from Sheet5
to sheet4
BPF(70MHz < Ft < 130MHz)

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

TUNER/DEMOD

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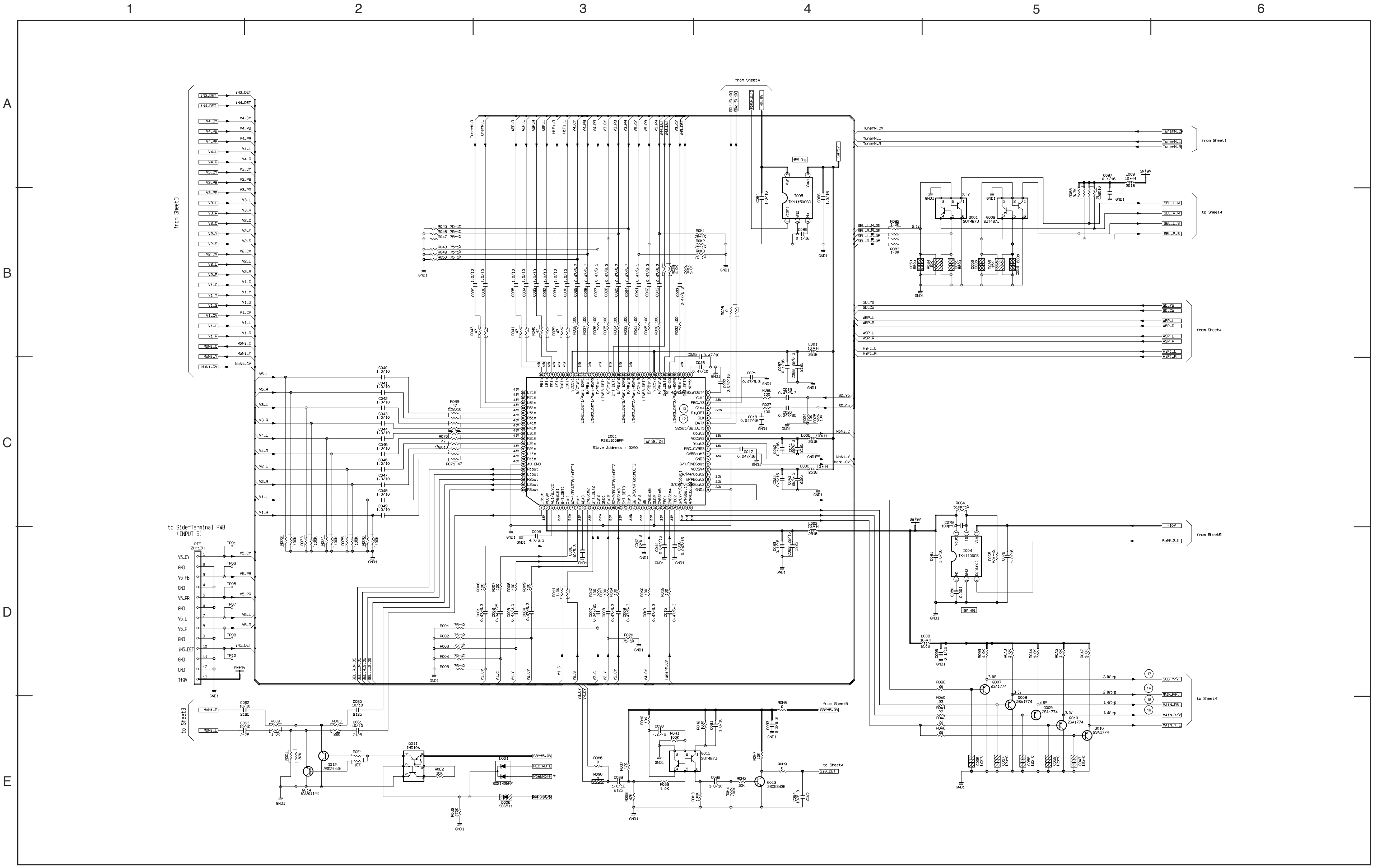
BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

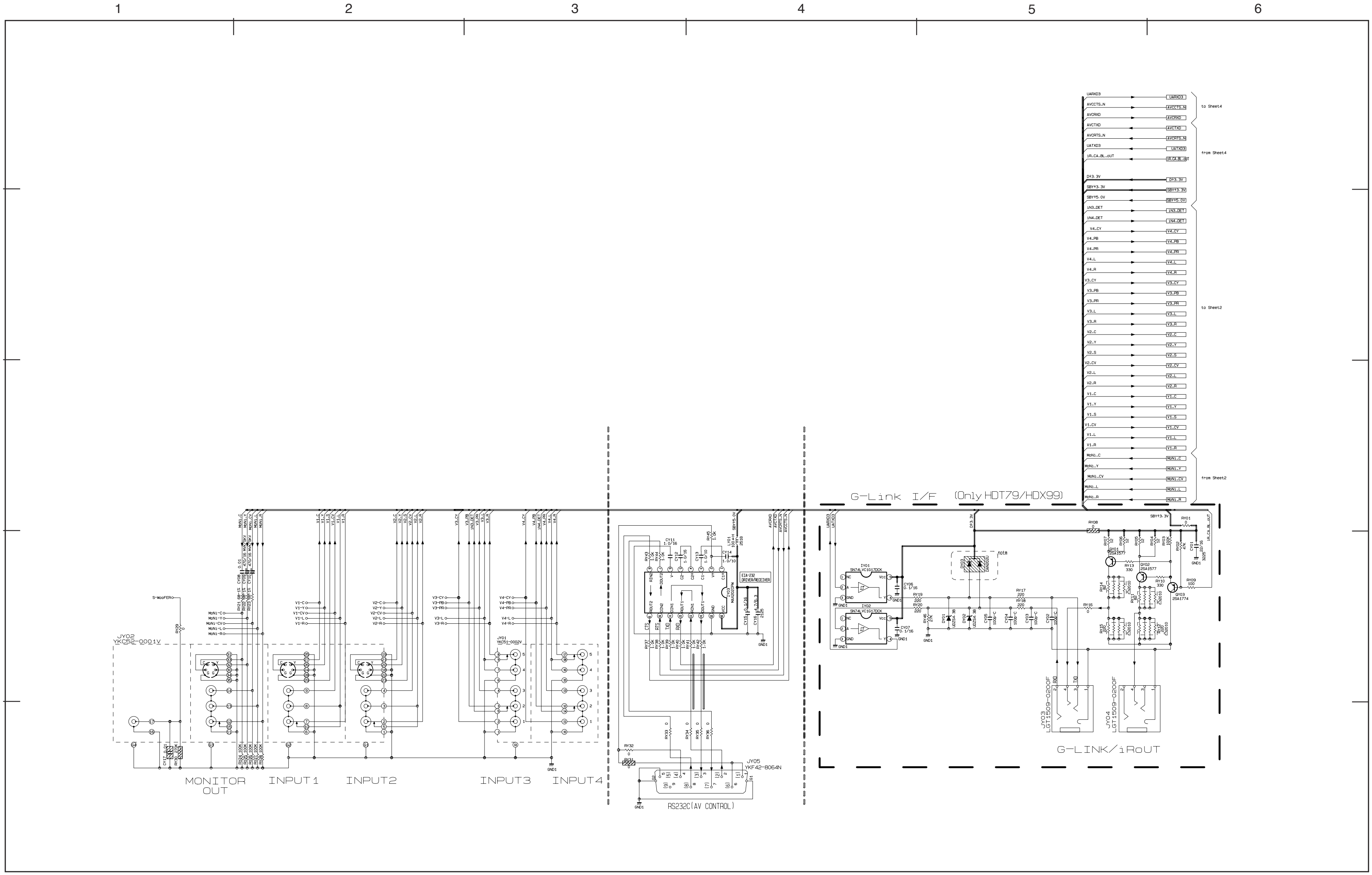

1
2
3
4
5
6
A
B
C
D
E
from Sheet3
to Sheet3
from Sheet1
from Sheet4
to Sheet4
from Sheet5
to Side-Terminal PWB (INPUT 5)
IC001 R2S11008FP
Slave Address : DX90
AV SWITCH
IC005 TK11150CSC
IC004 TK11100CS
M5V Reg
M9V Reg

AV-SWITCH

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

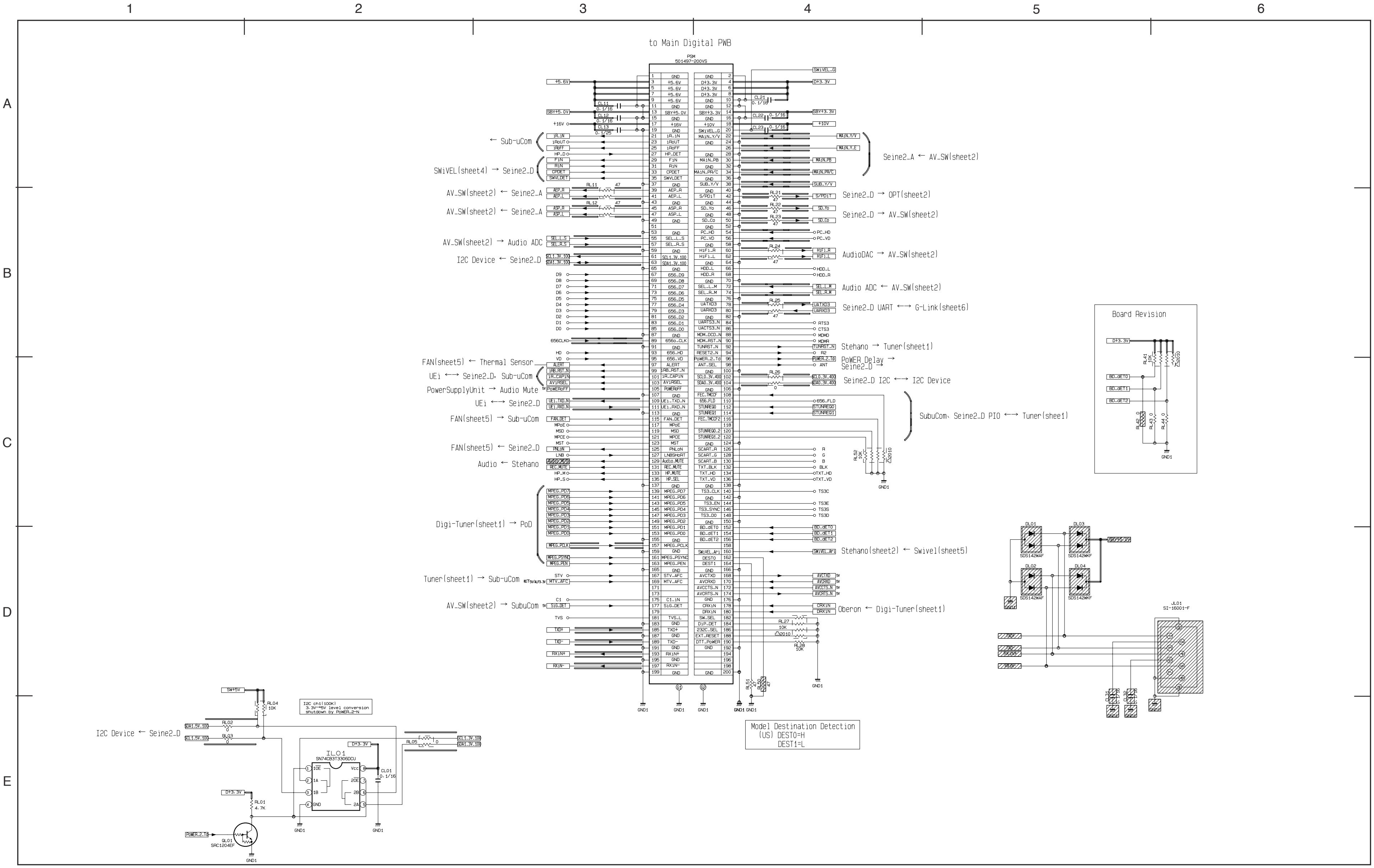

1
2
3
4
5
6
A
B
C
D
E
UARXD3
AVCCTS_N
AVCRXD
AVCTXD
AVCRTS_N
UATXD3
iR_CA_BL_oUT
to Sheet4
from Sheet4
D+3.3V
SBY+3.3V
SBY+5.0V
iN3_DET
iN4_DET
V4_CY
V4_PB
V4_PR
V4_L
V4_R
V3_CY
V3_PB
V3_PR
V3_L
V3_R
V2_C
V2_Y
V2_S
V2_CV
V2_L
V2_R
V1_C
V1_Y
V1_S
V1_CV
V1_L
V1_R
to Sheet2
MoNi_C
MoNi_Y
MoNi_CV
MoNi_L
MoNi_R
from Sheet2
G-Link I/F (Only HDT79/HDX99)
S-WooFER
JY02
YKC52-0001V
JY01
YKC51-0002V
CY08 0.01
CY09 470/16 MVK/SKV
CY10 470/16 MVK/SKV
RY21 68-1%
RY22 68-1%
RY23 68-1%
RY24 100K
RY25 100K
RY26 100K
RY27 100K
RY28 100K
RY29 0
CY17 0.01
RY30 270K
GND1
MONITOR OUT
INPUT1
INPUT2
INPUT3
INPUT4
IY03
MAX202IPW
EIA-232 DRIVER/RECEIVER
RIN2
DOUT2
V-
C2-
C2+
C1-
V+
C1+
ROUT2
DIN2
DIN1
ROUT1
RIN1
DOUT1
GND
VCC
CTS
RTS
TXD
RXD
CY11 1.0/16
CY12 1.0/16
CY13 1.0/10
CY14 1.0/10
CY15 0.1/16
CY16 4.7/6.3 2125
LY01 100µH 2518
RY37–RY45 1.0K
RY31 0
RY32 0
RY33 0
RY34 0
RY35 0
RY36 0
JY05
YKF42-8064N
RS232C(AV CONTROL)
IY01
SN74LVC1G17DCK
IY02
SN74LVC1G17DCK
NC
A
GND
Vcc
Y
CY06 0.1/16
CY07 0.1/16
RY19 220
RY20 220
RY17 220
RY18 220
RY46 27K
DY01 UDZS4.3B
DY02 UDZS4.3B
DY03 DAN202U
notm
CY05 100p-C
CY04 100p-C
CY03 100p-C
CY02 100p-C
RY08 0
RY01 0
RY07 12
RY06 12
RY05 12
RY04 12
RY03 100K
RY02 47K
CY01 22/16 3225
QY01 2SA1577
QY02 2SA1577
QY03 2SA1774
RY13 330
RY10 330
RY09 100
RY14 82
RY11 82
RY15 220
RY12 220
RY16 0
2010
JY03
LGT1509-0200F
JY04
LGT1509-0200F
G-LINK/iRoUT

TERMINAL

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
4
5
6
A
B
C
D
E
to Main Digital PWB
PSM 501497-200VS
← Sub-uCom
SWiVEL(sheet4) → Seine2_D
AV_SW(sheet2) ← Seine2_A
AV_SW(sheet2) ← Seine2_A
AV_SW(sheet2) → Audio ADC
I2C Device ← Seine2_D
FAN(sheet5) ← Thermal Sensor
UEi ⟷ Seine2_D, Sub-uCom
PowerSupplyUnit → Audio Mute
UEi ⟷ Seine2_D
FAN(sheet5) → Sub-uCom
FAN(sheet5) ← Seine2_D
Audio ← Stehano
Digi-Tuner(sheet1) → PoD
Tuner(sheet1) → Sub-uCom
AV_SW(sheet2) → SubuCom
Seine2_A ← AV_SW(sheet2)
Seine2_D → OPT(sheet2)
Seine2_D → AV_SW(sheet2)
AudioDAC → AV_SW(sheet2)
Audio ADC ← AV_SW(sheet2)
Seine2_D UART ⟷ G-Link(sheet6)
Stehano → Tuner(sheet1)
PoWER_Delay → Seine2_D
Seine2_D I2C ⟷ I2C Device
SubuCom, Seine2_D PIO ⟷ Tuner(shee1)
Stehano(sheet2) ← Swivel(sheet5)
Oberon ← Digi-Tuner(sheet1)
Board Revision
Model Destination Detection
(US) DEST0=H
DEST1=L
I2C Device ← Seine2_D
I2C ch1(100K)
3.3V→5V level conversion
shutdown by PoWER_2-N
IL01
SN74CB3T3306DCU
QL01
SRC1204EF
JL01
SI-16001-F
DL01
DL02
DL03
DL04
SDS142WAF
SDS142WKF
GND1

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

200 pin I/F

BASIC CIRCUIT DIAGRAM

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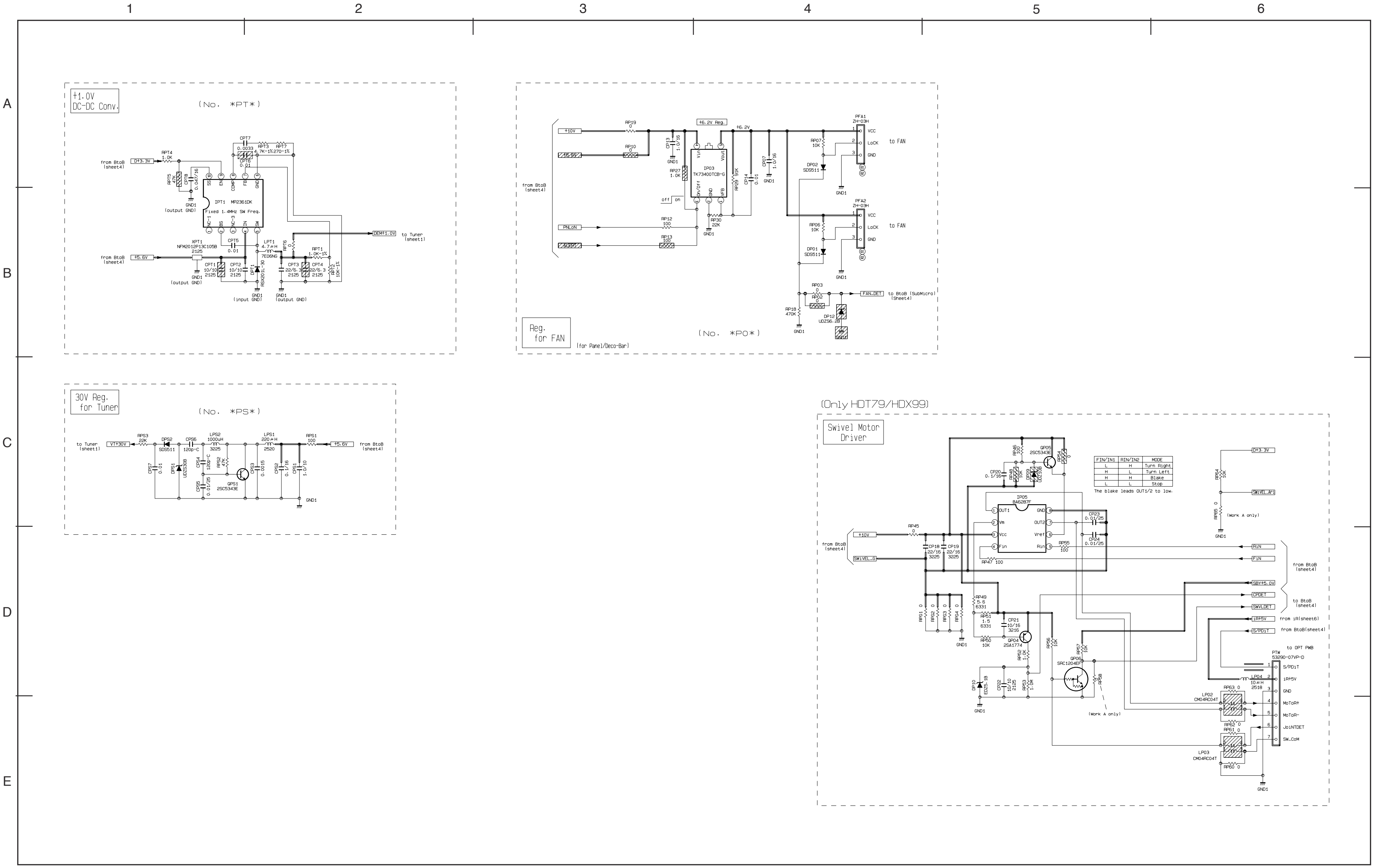

1
2
3
4
5
6
A
B
C
D
E
+1.0V DC-DC Conv.
(No. *PT*)
IPT1 MP2361DK
Fixed 1.4MHz SW Freq.
from BtoB (sheet4)
D+3.3V
+5.6V
DEM+1.0V
to Tuner (sheet1)
Reg. for FAN
(No. *PO*)
(for Panel/Deco-Bar)
IP03 TK73400TCB-G
+6.2V Reg.
+10V
PNLON
PFA1 ZH-03H
PFA2 ZH-03H
VCC
LOCK
GND
to FAN
FAN_DET
to BtoB (SubMicro) (Sheet4)
30V Reg. for Tuner
(No. *PS*)
VT+30V
QPS1 2SC5343E
(Only HDT79/HDX99)
Swivel Motor Driver
IP05 BA6287F
OUT1
Vm
Vcc
Fin
GND
OUT2
Vref
Rin
SWIVEL_G
RIN
FIN
SBY+5.0V
OPDET
SWVLDET
IR+5V
S/PDIT
from BtoB (sheet4)
to BtoB (sheet4)
from iR(sheet6)
from BtoB(sheet4)
to OPT PWB
PTW 53290-07VP-D
S/PDiT
iR+5V
GND
MoToR+
MoToR-
JoiNTDET
SW_CoM
(Work A only)

FIN/IN1	RIN/IN2	MODE
L	H	Turn Right
H	L	Turn Left
H	H	Blake
L	L	Stop

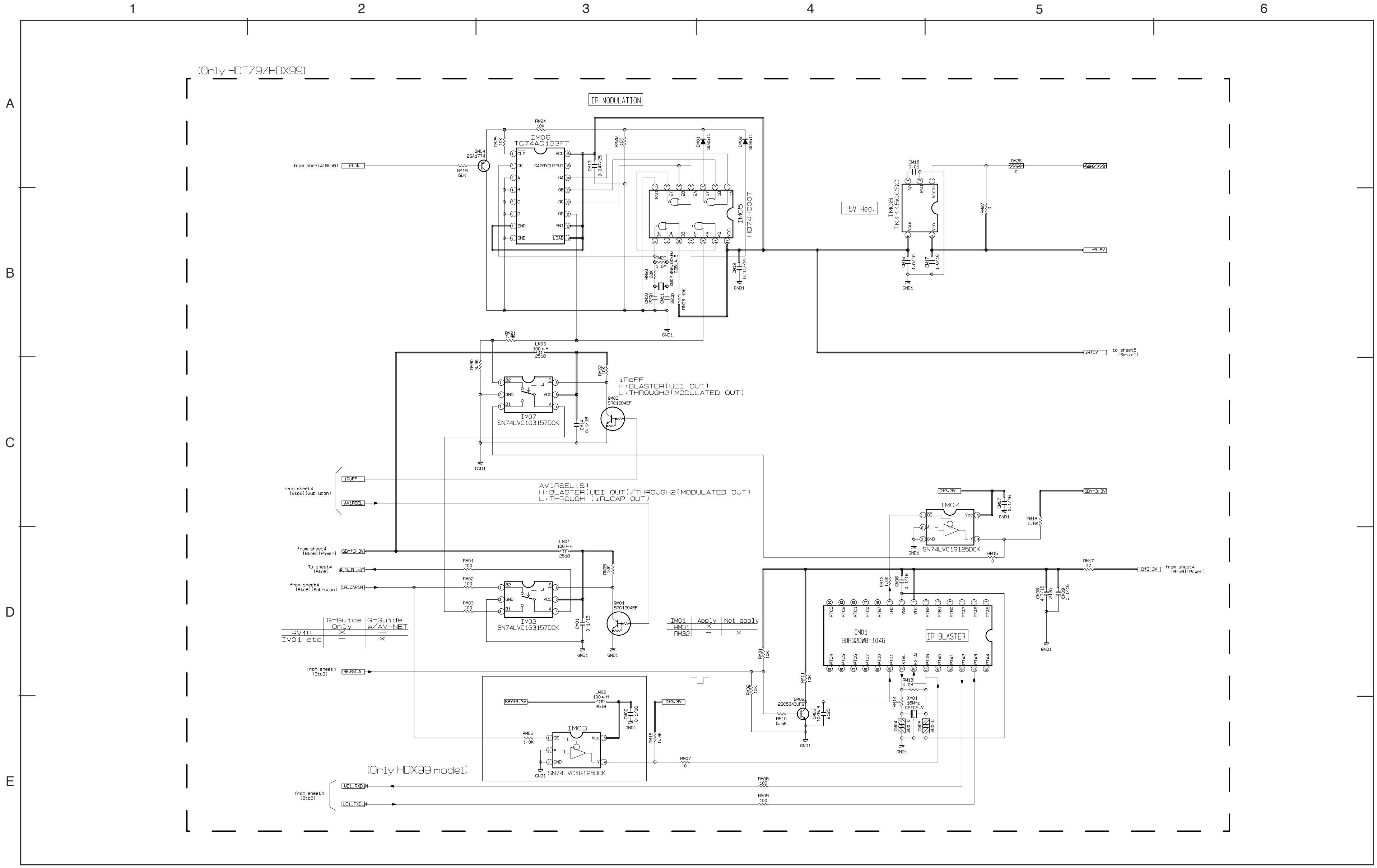
The blake leads OUT1/2 to low.

POWER SWIVEL

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
4
5
6
A
B
C
D
E
(Only HDT79/HDX99)
IR MODULATION
from sheet4(BtoB)
iR_iN
RM19
56K
QM04
2SA1774
RM24
10K
RM25
10K
IM06
TC74AC163FT
CLR
CK
A
B
C
D
ENP
GND
VCC
CARRYOUTPUT
QA
QB
QC
QD
ENT
LOAD
CM13
0.047/25
RM28
10K
DM01
SDS511
DM02
SDS511
IM05
HD74HC00T
GND
2Y
2B
2A
1Y
1B
1A
3Y
3A
3B
4Y
4A
4B
VCC
RM29
1.0M
RM20
68K
XM02 455.00kHz
CSBLA_E
CM10
220p
CM11
220p
RM23 10K
CM12
0.047/25
GND1
+5V Reg.
IM08
TK11150CSC
Np
GND
Vcont
Vout
Vin
CM15
0.01
RM26
0
RM27
0
CM16
1.0/10
CM17
1.0/10
+5.6V
iR+5V
to sheet5
(Swivel)
RM21
1.8K
LM03
100μH
2518
RM30
3.3K
RM22
10K
B2
GND
B1
S
VCC
A
IM07
SN74LVC1G3157DCK
CM14
0.1/16
QM03
SRC1204EF
iRoFF
H:BLASTER(UEI OUT)
L:THROUGH2(MODULATED OUT)
from sheet4
(BtoB)(Sub-ucon)
iRoFF
AViRSEL
AViRSEL(S)
H:BLASTER(UEI OUT)/THROUGH2(MODULATED OUT)
L:THROUGH (iR_CAP OUT)
from sheet4
(BtoB)(Power)
SBY+3.3V
To sheet4
(BtoB)
iR_CA_BL_oUT
from sheet4
(BtoB)(Sub-ucon)
iR_CAPiN
LM01
100μH
2518
RM01
100
RM02
100
RM03
100
RM05
10K
IM02
SN74LVC1G3157DCK
CM01
0.1/16
QM01
SRC1204EF
G-Guide Only
G-Guide w/AV-NET
RV18
IV01 etc
IM01
Apply
Not apply
RM31
RM32
from sheet4
(BtoB)
iRB_RST_N
SBY+3.3V
LM02
100μH
2518
CM02
0.1/16
RM06
1.0K
IM03
OE
A
GND
Vcc
Y
SN74LVC1G125DCK
D+3.3V
RM16
5.6K
RM07
0
(Only HDX99 model)
from sheet4
(BtoB)
UEi_RXD_N
UEi_TXD_N
RM08
100
RM09
100
D+3.3V
IM04
SN74LVC1G125DCK
CM07
0.1/16
SBY+3.3V
RM18
5.6K
RM15
0
RM17
47
D+3.3V
from sheet4
(BtoB)(Power)
RM12
1.0K
CM06
0.1/16
CM08
4.7/16
2125
CM09
0.1/16
IM01
9DR32DW8-1046
IR BLASTER
PTC3
PTC2
PTC1
PTC0
PTB7
IRO
VSS
VDD
PTB2
PTB1
PTB0
PTA7
PTA6
PTA5
PTC4
PTC5
PTC6
PTC7
PTD0
PTD1
XTAL
EXTAL
PTD6
PTA0
PTA1
PTA2
PTA3
PTA4
RM31
10K
RM32
10K
RM11
10K
QM02
2SC5343UFG
RM10
5.6K
CM03
10/6.3
2125
RM13
1.0M
RM14
0
XM01
16MHz
CSTCE_V
CM04
20p-C
CM05
20p-C

UEI/IR BLASTER

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
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BASIC CIRCUIT DIAGRAM

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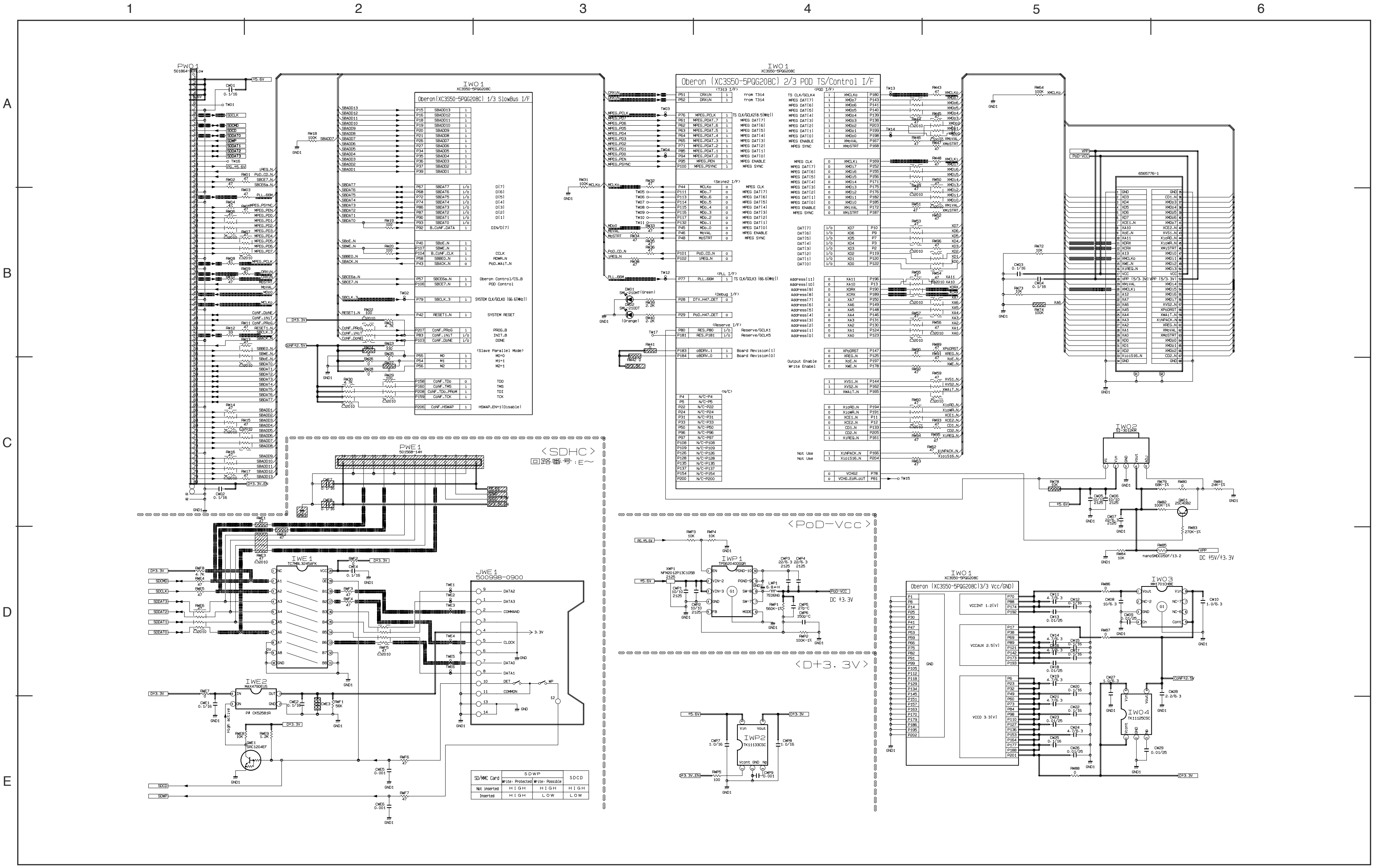
1
2
3
4
5
6
A
B
C
D
E
PW01
IW01
Oberon (XC3S50-5PQG208C) 1/3 SlowBus I/F
Oberon (XC3S50-5PQG208C) 2/3 POD TS/Control I/F
Oberon (XC3S50-5PQG208C) 3/3 Vcc/GND
PWE1
<SDHC>
IWE1
TC7MBL3245AFK
JWE1
500998-0900
IWE2
MAX4790EUS
<PoD-Vcc>
IWP1
DC +3.3V
<D+3.3V>
IWP2
TK11133CSC
IW02
IW03
IW04
TK11125CSC
6565776-1
DC +5V/+3.3V
SD/MMC Card
SDWP
SDCD
Write-Protected
Write-Possible
Not inserted
Inserted
HIGH
LOW

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

POD

BASIC CIRCUIT DIAGRAM

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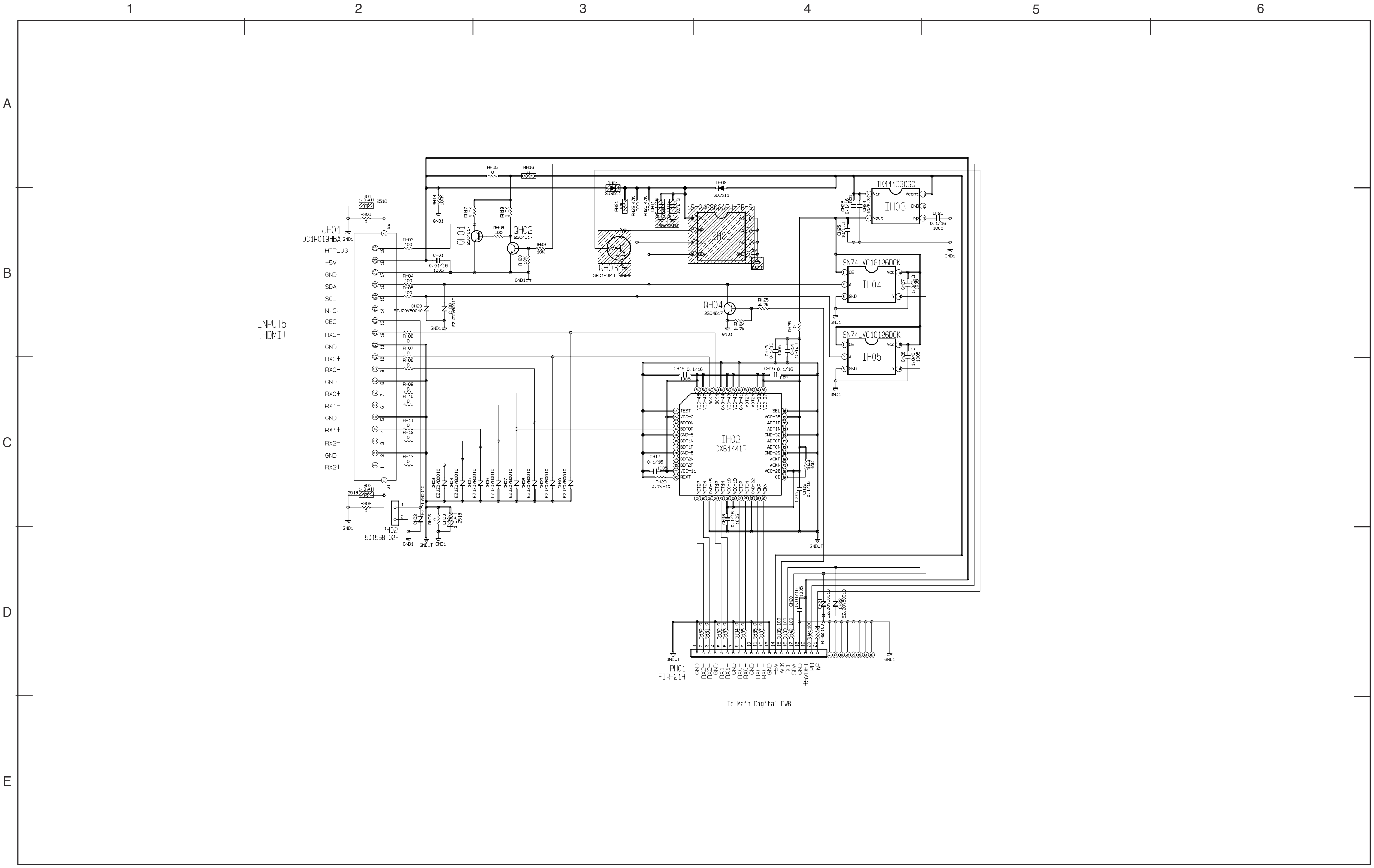
1
2
3
4
5
6
A
B
C
D
E
INPUT5
(HDMI)
JH01
DC1R019HBA
HTPLUG
+5V
GND
SDA
SCL
N. C.
CEC
RXC−
GND
RXC+
RX0−
GND
RX0+
RX1−
GND
RX1+
RX2−
GND
RX2+
LH01
LH02
PH02
501568-02H
QH01
2SC4617
QH02
2SC4617
QH03
SRC1202EF
QH04
2SC4617
DH01
SDS511
DH02
SDS511
IH01
IH02
CXB1441R
IH03
TK11133CSC
IH04
SN74LVC1G126DCK
IH05
SN74LVC1G126DCK
GND1
GND_T
PH01
FIR-21H
To Main Digital PWB

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

FRONT HDMI

BASIC CIRCUIT DIAGRAM

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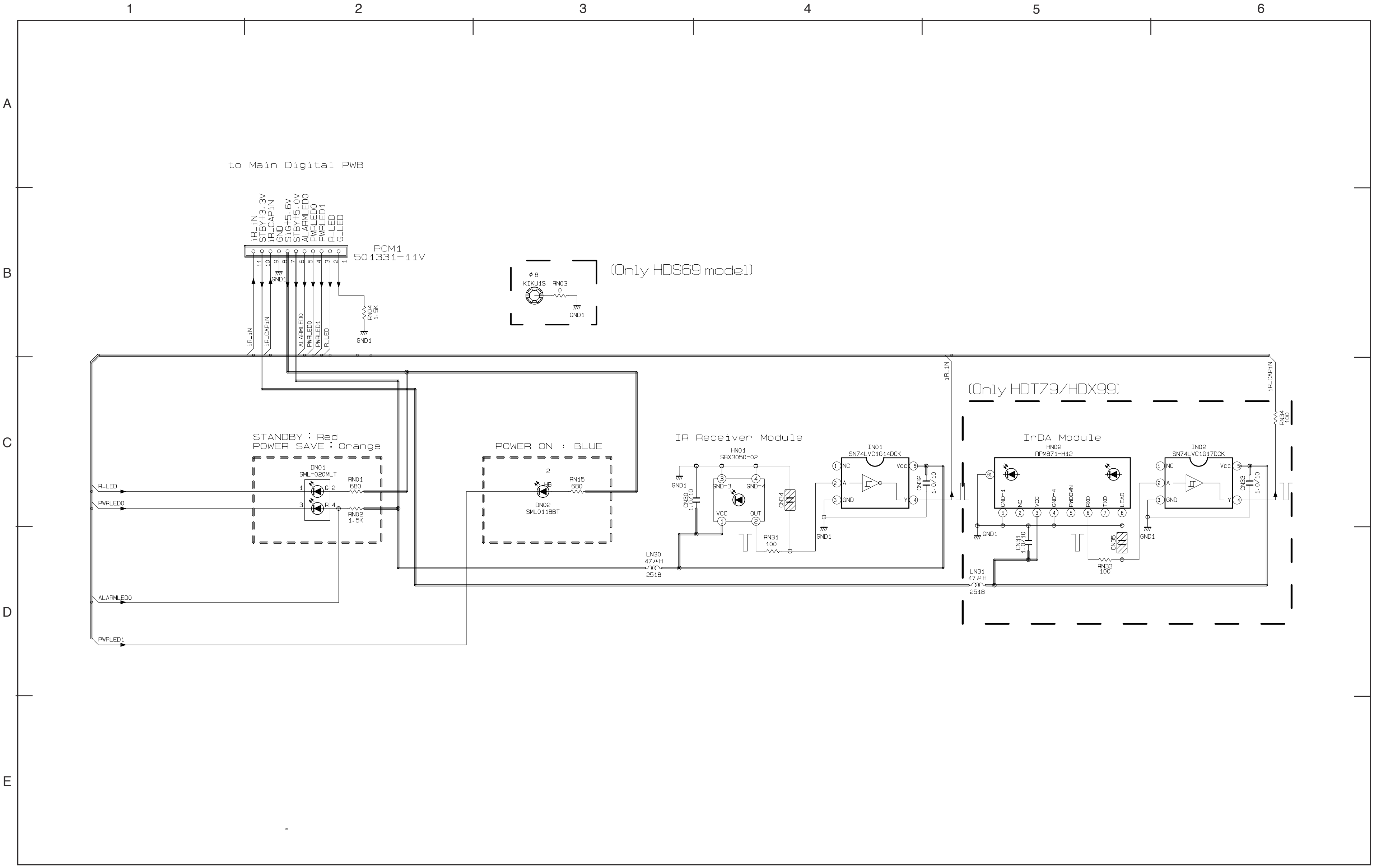
1
2
3
4
5
6
A
B
C
D
E
to Main Digital PWB
iR_iN
STBY+3.3V
iR_CAPiN
GND
SiG+5.6V
STBY+5.0V
ALARMLED0
PWRLED0
PWRLED1
R_LED
G_LED
PCM1
501331-11V
11
10
9
8
7
6
5
4
3
2
1
GND1
RN04
1.5K
GND1
iR_iN
iR_CAPiN
ALARMLED0
PWRLED0
PWRLED1
R_LED
φ8
KIKU1S
RN03
0
GND1
(Only HDS69 model)
STANDBY : Red
POWER SAVE : Orange
DN01
SML-020MLT
1
G
2
3
R
4
RN01
680
RN02
1.5K
POWER ON : BLUE
2
HB
RN15
680
DN02
SML011BBT
R_LED
PWRLED0
ALARMLED0
PWRLED1
IR Receiver Module
HN01
SBX3050-02
GND1
GND-3
GND-4
VCC
OUT
CN30
1.0/10
CN34
RN31
100
LN30
47μH
2518
IN01
SN74LVC1G14DCK
NC
A
GND
Vcc
Y
CN32
1.0/10
GND1
iR_iN
(Only HDT79/HDX99)
IrDA Module
HN02
RPM871-H12
G1
GND-1
NC
VCC
GND-4
PWDOWN
RXD
TXD
LEAD
GND1
CN31
1.0/10
CN35
RN33
100
LN31
47μH
2518
IN02
SN74LVC1G17DCK
NC
A
GND
Vcc
Y
CN33
1.0/10
GND1
iR_CAPiN
RN34
100

LED

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

BASIC CIRCUIT DIAGRAM

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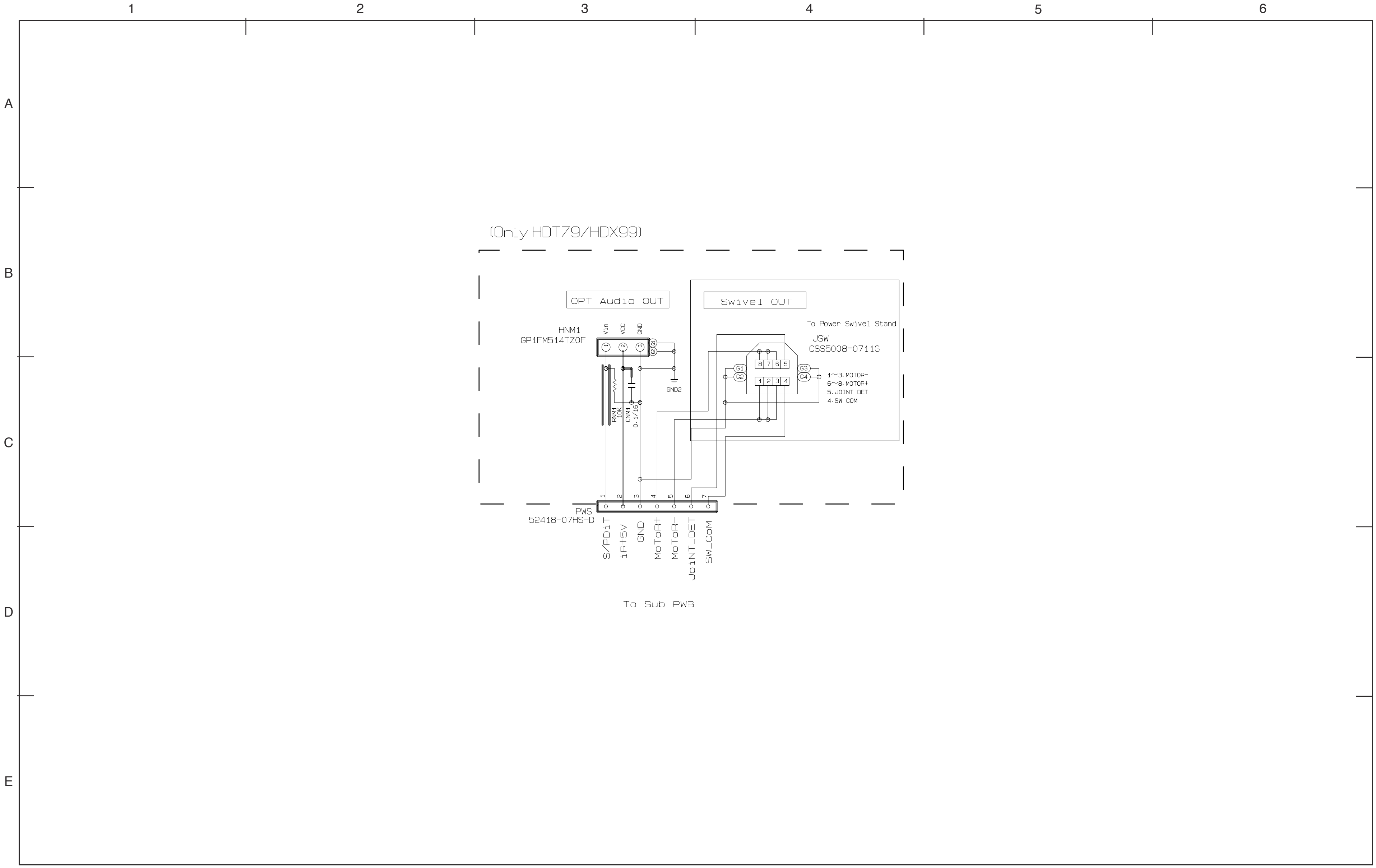
1
2
3
4
5
6
A
B
C
D
E
(Only HDT79/HDX99)
OPT Audio OUT
Swivel OUT
To Power Swivel Stand
HNM1
GP1FM514TZ0F
Vin
VCC
GND
G1
G2
GND2
RNM1
10K
CNM1
0.1/16
JSW
CSS5008-0711G
8 7 6 5
1 2 3 4
G1
G2
G3
G4
1~3. MOTOR-
6~8. MOTOR+
5. JOINT DET
4. SW COM
PWS
52418-07HS-D
1 2 3 4 5 6 7
S/PDiT
iR+5V
GND
MoToR+
MoToR-
JoiNT_DET
SW_CoM
To Sub PWB

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

OPT

BASIC CIRCUIT DIAGRAM

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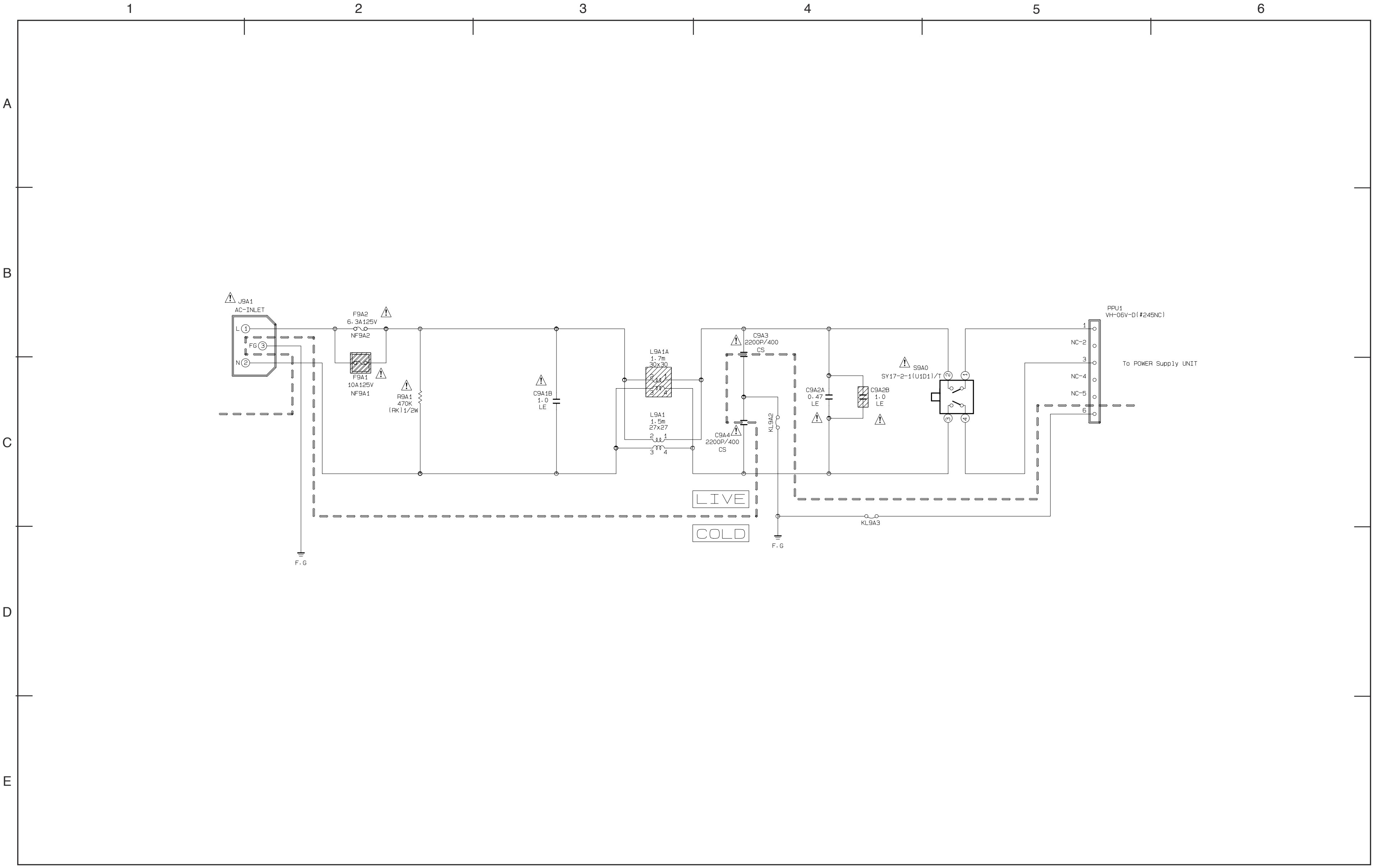
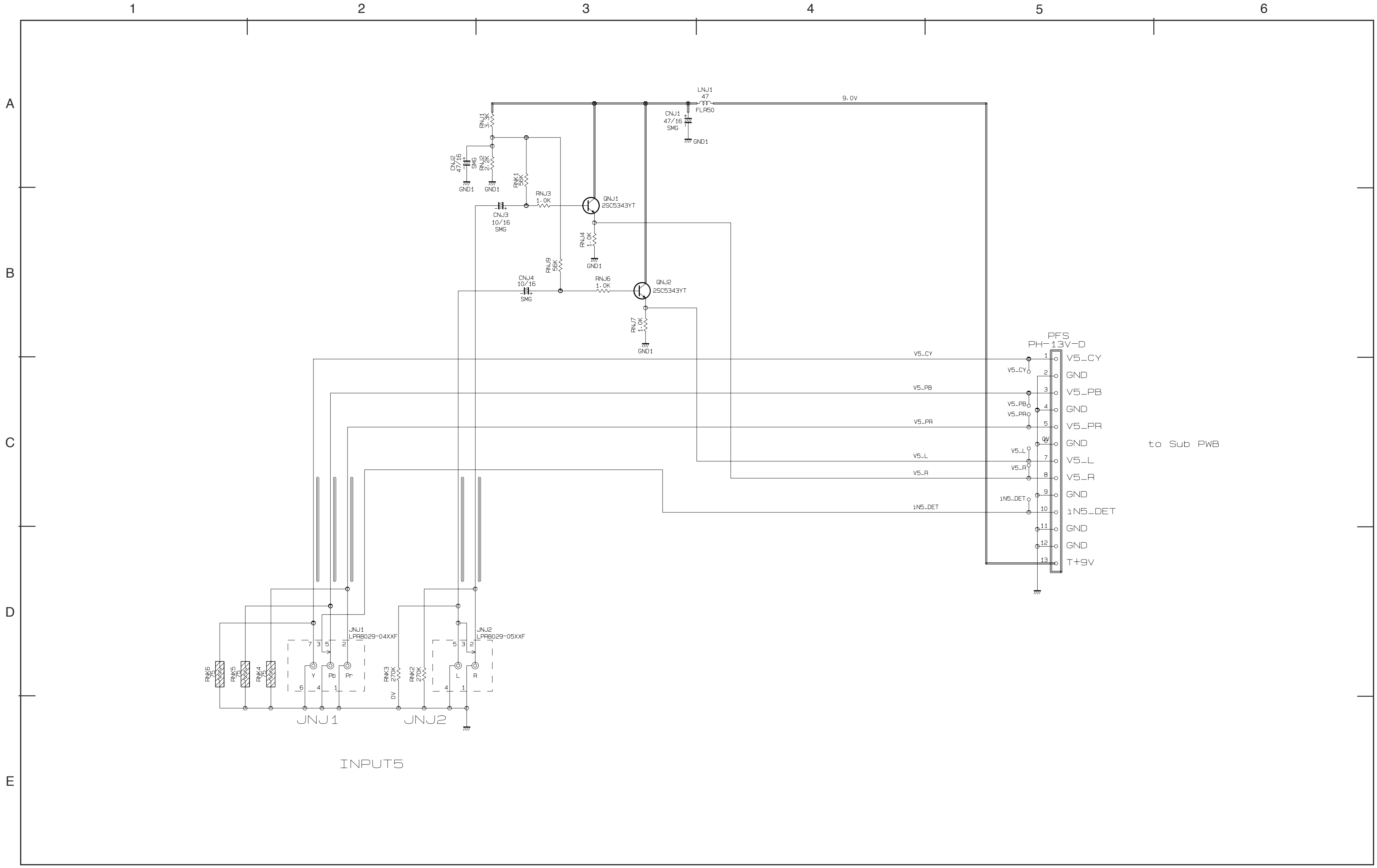

1
2
3
4
5
6
A
B
C
D
E
J9A1
AC-INLET
L 1
FG 3
N 2
F9A2
6.3A125V
NF9A2
F9A1
10A125V
NF9A1
R9A1
470K
(RK)1/2W
C9A1B
1.0
LE
L9A1A
1.7m
30x30
2 1
3 4
L9A1
1.5m
27x27
2 1
3 4
C9A3
2200P/400
CS
C9A4
2200P/400
CS
KL9A2
C9A2A
0.47
LE
C9A2B
1.0
LE
S9A0
SY17-2-1(U1D1)/T
2
1
3
4
PPU1
VH-06V-D(#245NC)
1
NC-2
3
NC-4
NC-5
6
To POWER Supply UNIT
LIVE
COLD
KL9A3
F.G
F.G

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

FILTER

BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

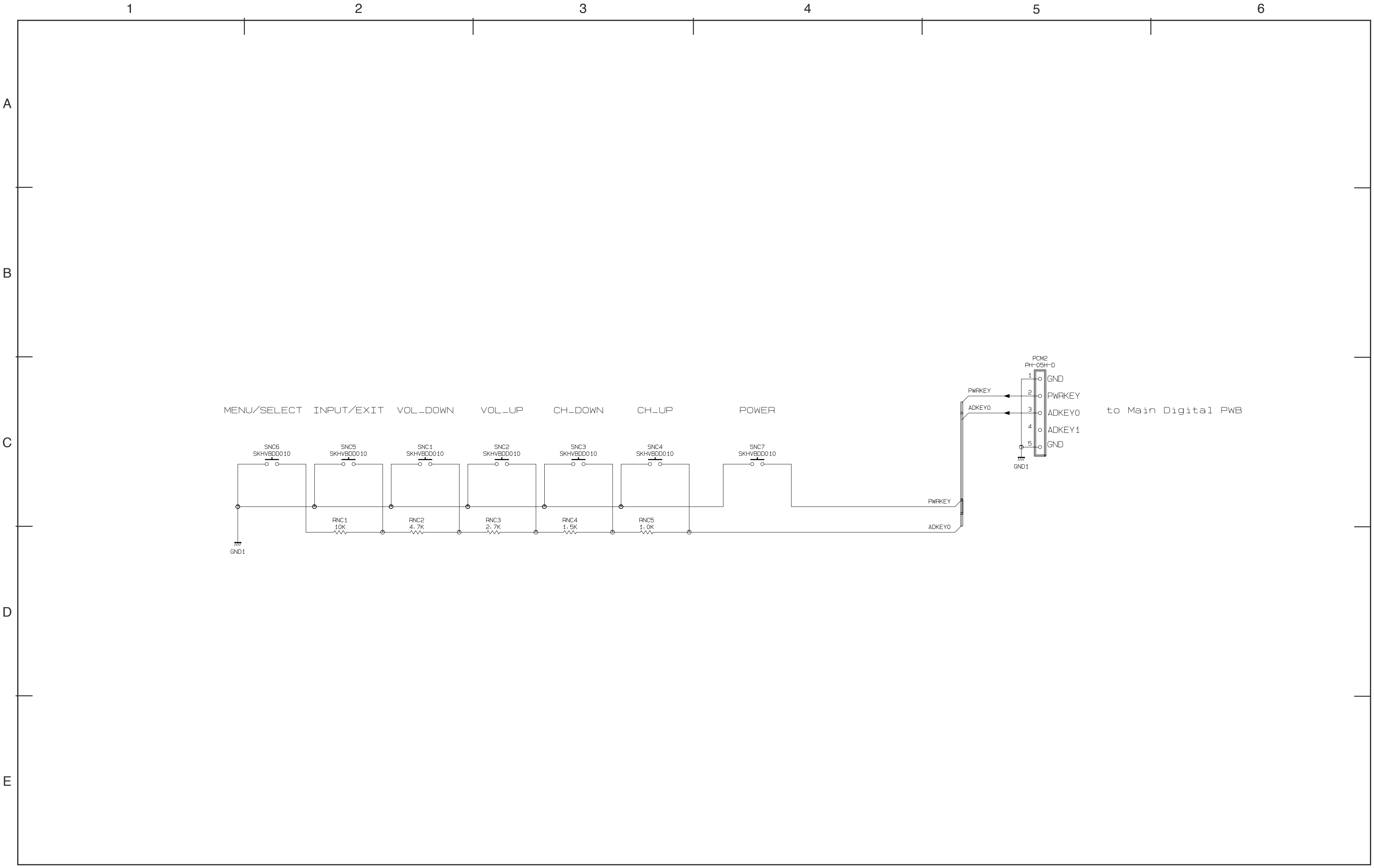

1
2
3
4
5
6
A
B
C
D
E
LNJ1
47
FLR50
9.0V
CNJ1
47/16
SMG
GND1
RNJ1
3.3K
CNJ2
47/16
SMG
RNJ2
2.2K
GND1
GND1
RNK1
56K
RNJ3
1.0K
QNJ1
2SC5343YT
CNJ3
10/16
SMG
RNJ4
1.0K
GND1
RNJ9
56K
CNJ4
10/16
SMG
RNJ6
1.0K
QNJ2
2SC5343YT
RNJ7
1.0K
GND1
PFS
PH-13V-D
V5_CY
V5_PB
V5_PR
V5_L
V5_R
iN5_DET
1 V5_CY
2 GND
3 V5_PB
4 GND
5 V5_PR
6 GND
0V
7 V5_L
8 V5_R
9 GND
10 iN5_DET
11 GND
12 GND
13 T+9V
to Sub PWB
RNK6
75
RNK5
75
RNK4
75
JNJ1
LPR8029-04XXF
7 3 5 2
Y Pb Pr
6 4 1
RNK3
270K
RNK2
270K
0V
JNJ2
LPR8029-05XXF
5 3 2
L R
4 1
JNJ1
JNJ2
INPUT5

SIDE TERMINAL

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

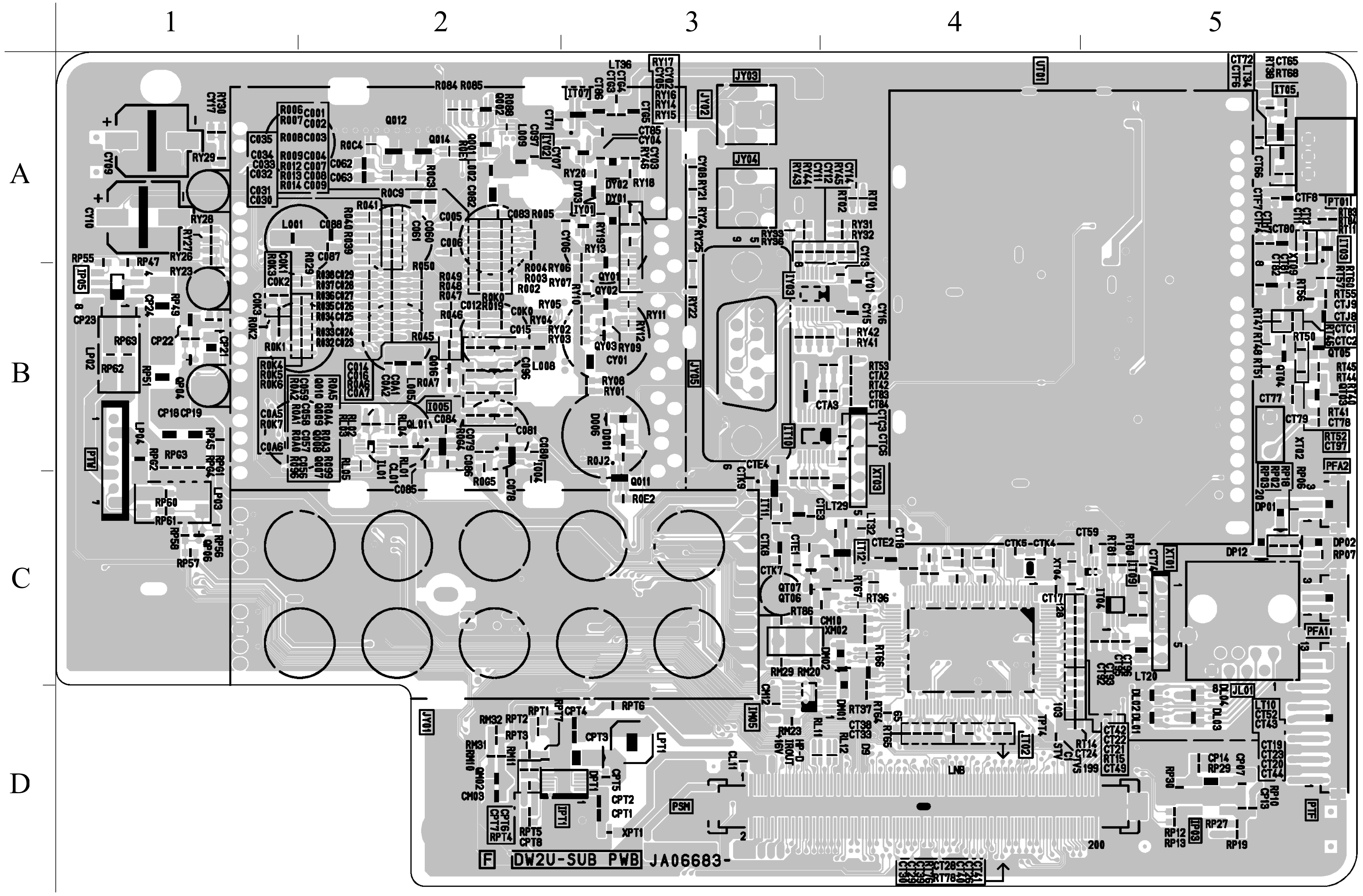

1
2
3
4
5
6
A
B
C
D
E
MENU/SELECT
INPUT/EXIT
VOL_DOWN
VOL_UP
CH_DOWN
CH_UP
POWER
SNC6 SKHVBDD010
SNC5 SKHVBDD010
SNC1 SKHVBDD010
SNC2 SKHVBDD010
SNC3 SKHVBDD010
SNC4 SKHVBDD010
SNC7 SKHVBDD010
RNC1 10K
RNC2 4.7K
RNC3 2.7K
RNC4 1.5K
RNC5 1.0K
GND1
PWRKEY
ADKEY0
PCM2 PH-05H-D
1 GND
2 PWRKEY
3 ADKEY0
4 ADKEY1
5 GND
GND1
to Main Digital PWB

CONTROL

- All DC voltage to be measured with a tester (100 kΩ/V). Voltage taken on a complex color bar including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

PRINTED CIRCUIT BOARDS

DW2-U SUBDIGITAL PWB (Component side)



SEMICONDUCTOR LOCATION
(Component side)

IC	
I004	B-2
I005	B-2
IL01	B-2
IM05	D-3
IP03	D-5
IP05	B-1
IPT1	D-2
IT02	C-4
IT03	A-5
IT04	C-4
IT05	A-5
IT07	A-3
IT09	C-5
IT10	B-3
IT11	C-3
IT12	C-4
IY01	A-3
IY02	A-3
IY03	B-3

TRANSISTOR	
Q001	A-2
Q002	A-2
Q007	B-2
Q008	B-2
Q009	B-2
Q010	B-2
Q011	C-3
Q012	A-2
Q014	A-2
Q016	B-2
QL01	B-2
QM02	D-2
QP04	B-1
QP06	C-1
QT03	B-5
QT04	B-5
QT05	B-5
QT06	C-3
QT07	C-3
QY01	B-3
QY02	B-3
QY03	B-3

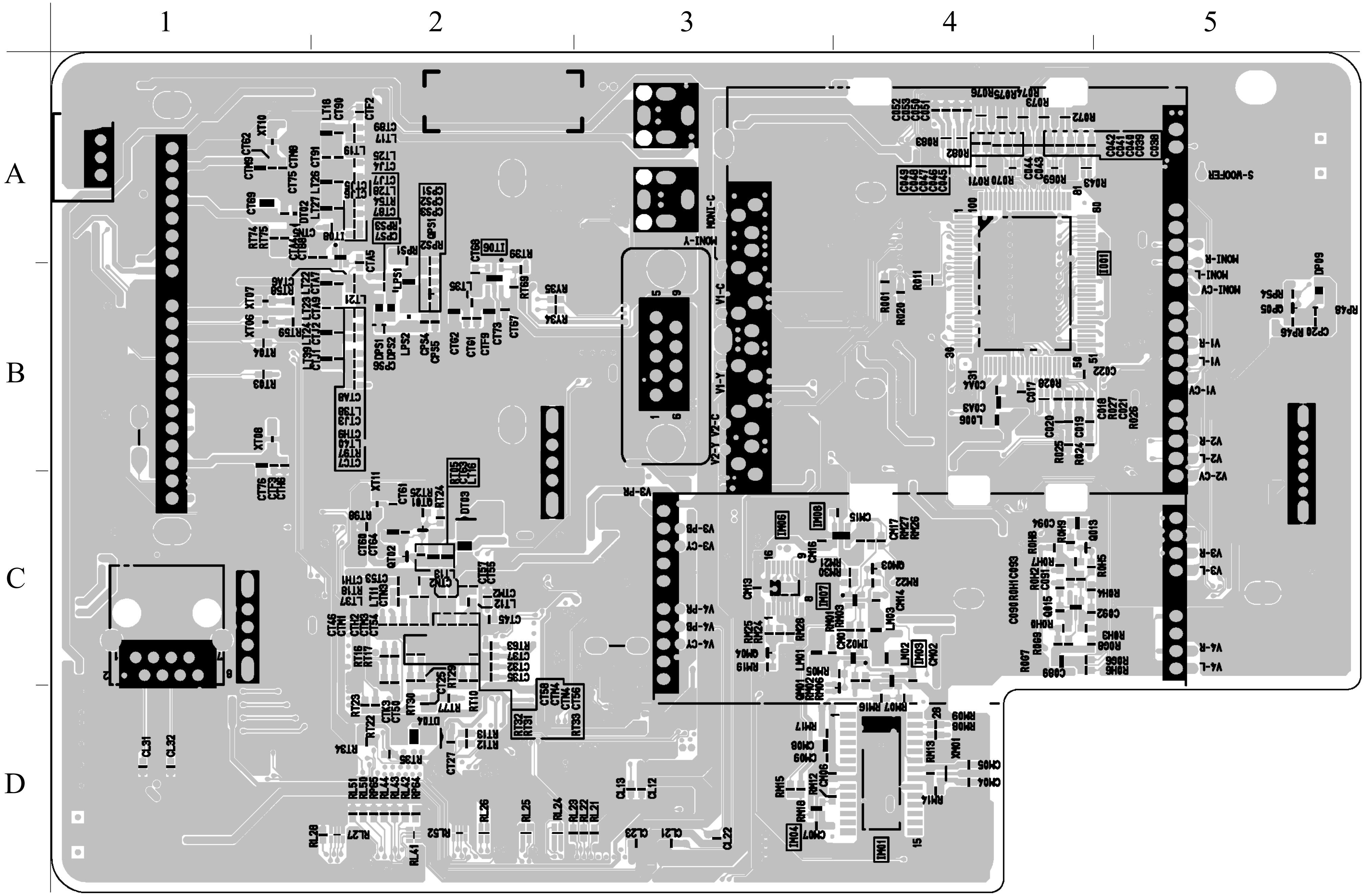
DIODE	
D001	B-3
D006	B-3
DL01	D-5
DL02	D-5
DL03	D-5
DL04	D-5
DM01	D-4
DM02	C-4
DP01	C-5
DP02	C-5
DP10	B-1
DP12	C-5
DPT1	D-2
DY01	A-3
DY02	A-3
DY03	A-3

CRYSTAL & FILTER	
XM02	C-3
XPT1	D-3
XT01	C-5
XT02	B-5
XT03	B-4
XT04	C-4
XT09	B-5

BACK TO TABLE OF CONTENTS

PRINTED CIRCUIT BOARDS

DW2-U SUBDIGITAL PWB (Solder side)

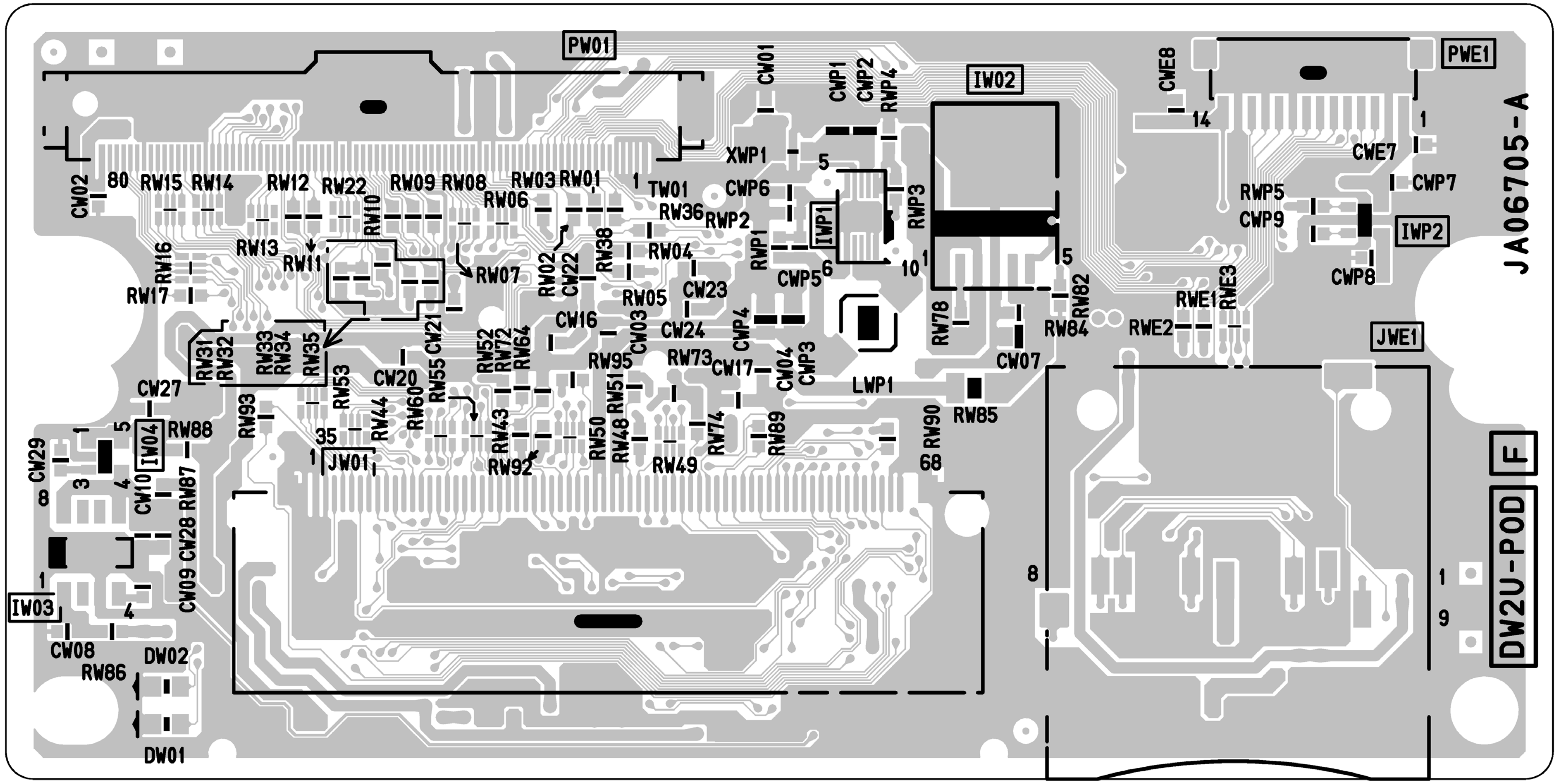


SEMICONDUCTOR LOCATION
(Solder side)

IC	
I001	B-4
IM01	D-4
IM02	C-4
IM03	C-4
IM04	D-3
IM06	C-3
IM07	C-4
IM08	C-4
IT06	B-2
IT08	A-2
TRANSISTOR	
Q013	C-4
Q015	C-4
QM01	D-4
QM03	C-4
QM04	C-3
QP05	B-5
QPS1	B-2
QT01	C-2
QT02	C-2
DIODE	
DP09	B-5
DPS1	B-2
DPS2	B-2
DT02	A-1
DT03	C-2
DT04	D-2
CRYSTAL & FILTER	
XM01	D-4
XT06	B-1
XT07	B-1
XT08	B-1
XT10	A-1
XT11	C-2

PRINTED CIRCUIT BOARDS

DW2-U POD PWB (Component side)

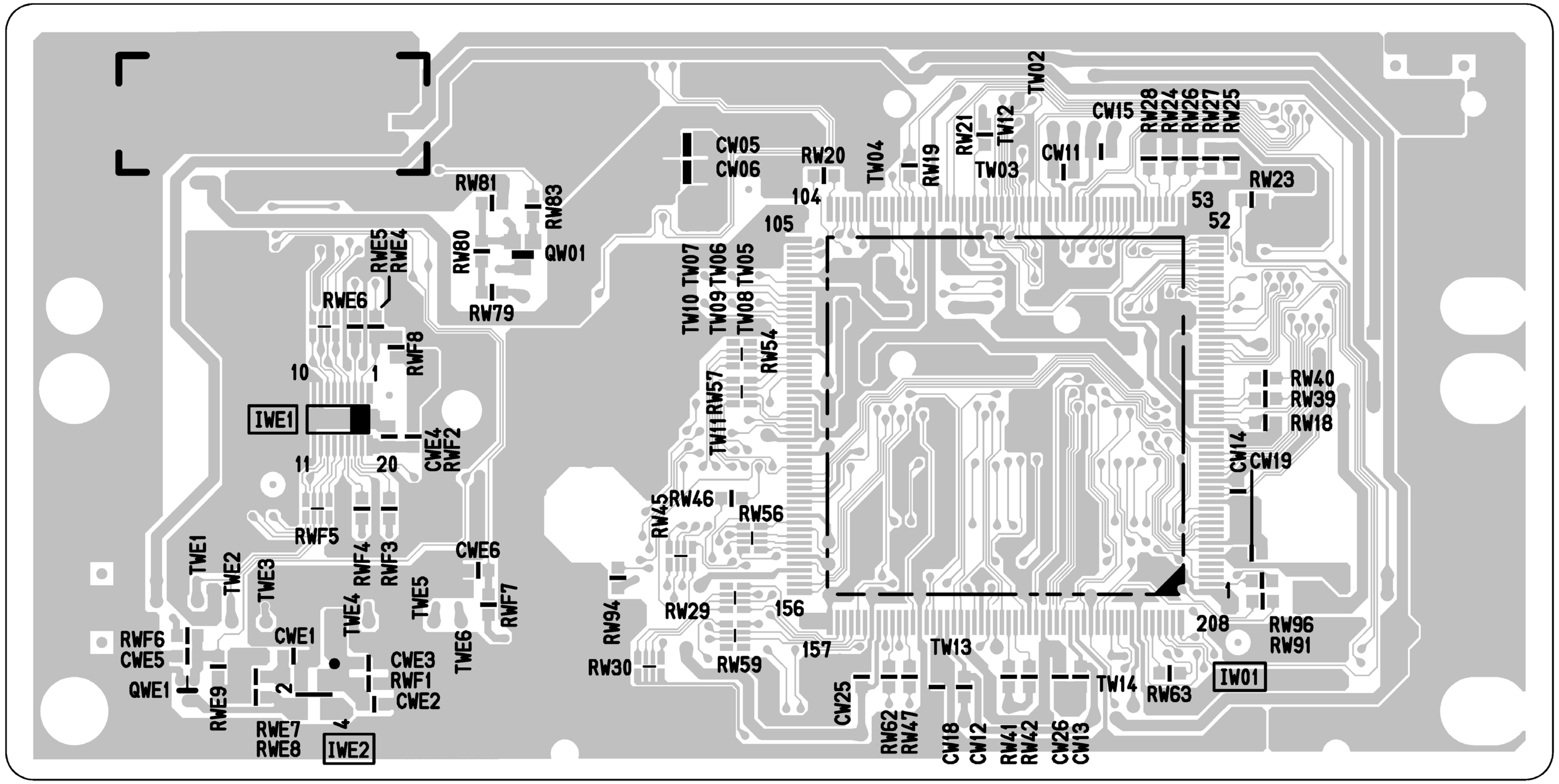

PW01
CW01
CWP1
CWP2
RWP4
IW02
CWE8
PWE1
JA06705-A
XWP1
CW02
80
RW15
RW14
RW12
RW22
RW09
RW08
RW03
RW01
1
TW01
CWP6
5
14
1
CWE7
CWP7
RW10
RW06
RW36
RWP2
RWP3
RWP5
CWP9
IWP2
RW16
RW13
RW11
RW07
RW02
CW22
RW38
RW04
RWP1
IWP1
CWP5
6
10
1
5
CWP8
RW17
RW05
CW23
RW82
RWE1
RWE3
RW31
RW32
RW33
RW34
RW35
RW52
RW72
RW64
CW21
CW16
CW03
CW24
CWP4
RW78
RW84
RWE2
JWE1
CW27
RW53
CW20
RW55
RW95
RW73
CW17
CW04
CWP3
CW07
RW44
RW60
RW51
LWP1
RW93
RW43
RW50
RW48
RW74
RW89
RW90
RW85
CW29
5
IW04
RW88
35
8
3
4
1
JW01
RW92
RW49
68
CW10
RW87
CW28
CW09
8
1
9
F
DW2U-POD
1
IW03
4
CW08
RW86
DW02
DW01

SEMICONDUCTOR LIST
(Component side)

IC
IW02 IW03 IW04 IWP1 IWP2
DIODE
DW01 DW02
CRYSTAL & FILTER
XWP1

PRINTED CIRCUIT BOARDS

DW2-U POD PWB (Solder side)


RW81
RW83
RW80
QW01
RW79
RWE5
RWE4
RWE6
RWF8
10
1
IWE1
11
20
CWE4
RWF2
RWF5
TWE1
TWE2
TWE3
RWF4
RWF3
CWE6
TWE4
TWE5
RWF7
TWE6
RWF6
CWE5
QWE1
RWE9
CWE1
2
CWE3
RWF1
CWE2
4
RWE7
RWE8
IWE2
CW05
CW06
RW20
104
105
TW04
RW19
RW21
TW12
TW03
TW02
CW11
CW15
RW28
RW24
RW26
RW27
RW25
RW23
53
52
TW10
TW07
TW09
TW06
TW08
TW05
RW54
TW11
RW57
RW45
RW46
RW56
RW94
RW29
156
RW30
RW59
157
RW40
RW39
RW18
CW14
CW19
1
208
RW96
RW91
TW13
TW14
RW63
IW01
CW25
RW62
RW47
CW18
CW12
RW41
RW42
CW26
CW13

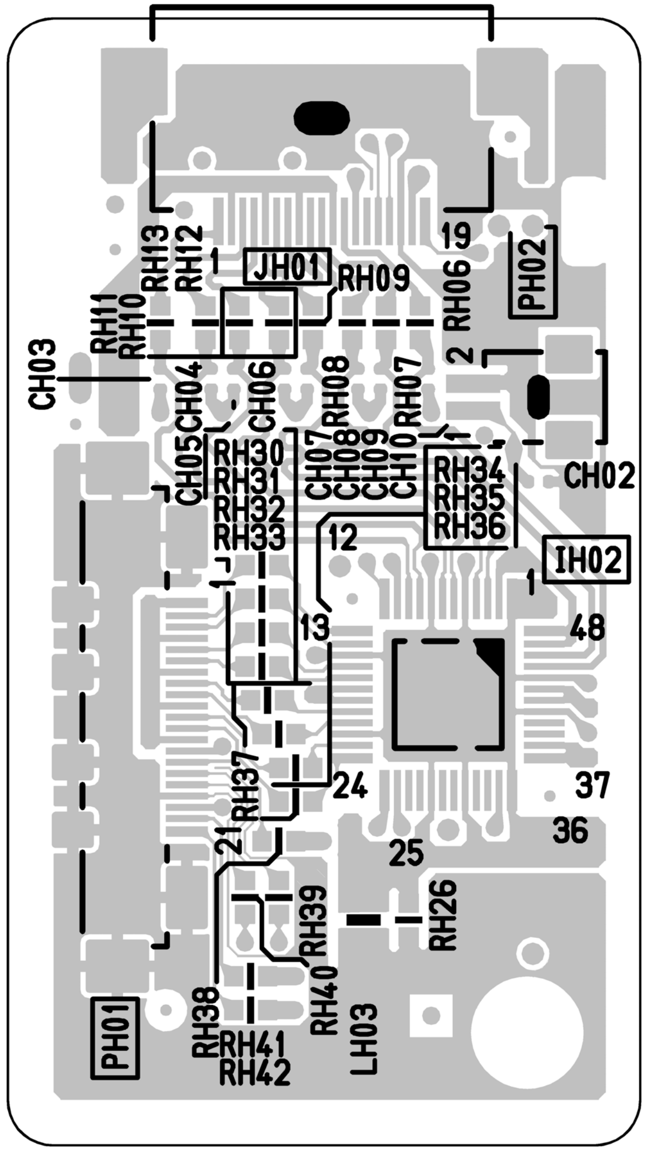
SEMICONDUCTOR LIST
(Solder side)

IC
IW01 IWE1 IWE2
TRANSISTOR
QW01 QWE1

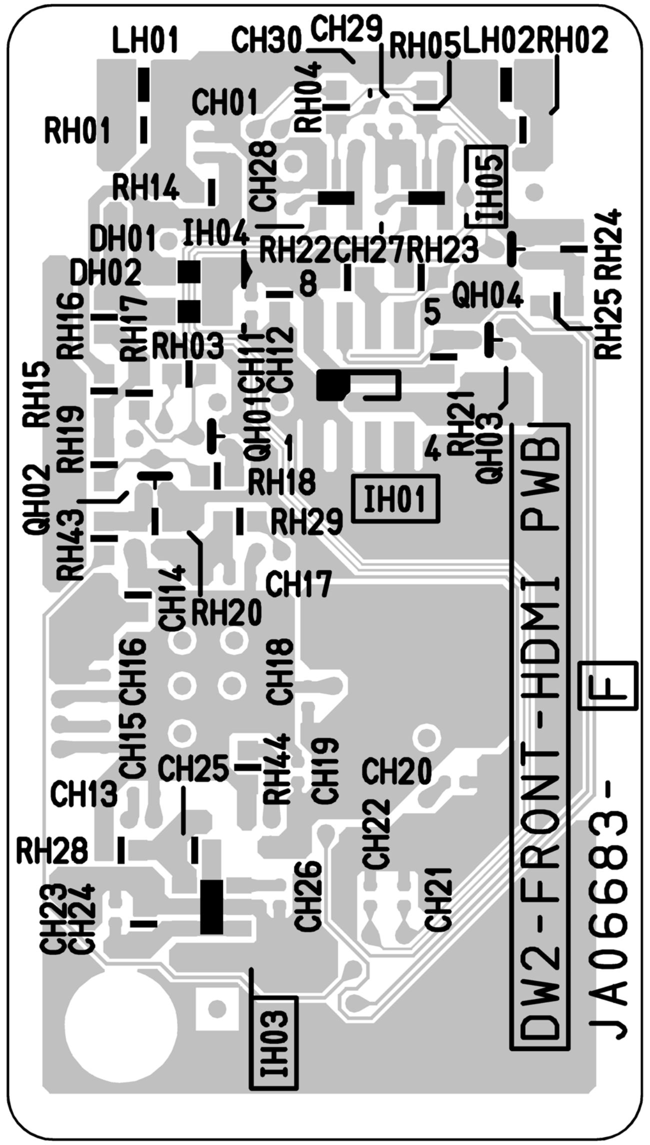
PRINTED CIRCUIT BOARDS

DW2-U FRONT HDMI PWB

(Component side)


RH13
RH12
1
JH01
RH09
19
RH06
PH02
RH11
RH10
2
CH03
CH05
CH04
CH06
RH08
CH07
CH08
CH09
CH10
RH07
RH30
RH31
RH32
RH33
RH34
RH35
RH36
CH02
12
IH02
1
13
48
RH37
24
37
36
21
25
RH39
RH40
RH26
RH38
RH41
RH42
LH03
PH01

(Solder side)


LH01
CH30
CH29
RH05
LH02
RH02
CH01
RH04
RH01
RH14
CH28
IH05
DH01
IH04
RH22
CH27
RH23
RH24
DH02
8
5
QH04
RH25
RH16
RH17
RH03
CH11
CH12
RH15
RH19
QH01
1
4
RH21
QH03
QH02
RH43
RH18
RH29
IH01
CH14
RH20
CH17
CH16
CH18
CH15
CH25
RH44
CH19
CH20
CH13
CH22
RH28
CH26
CH21
CH23
CH24
IH03
DW2-FRONT-HDMI PWB
F
JA06683-

SEMICONDUCTOR LIST

Component side

IC
IH02

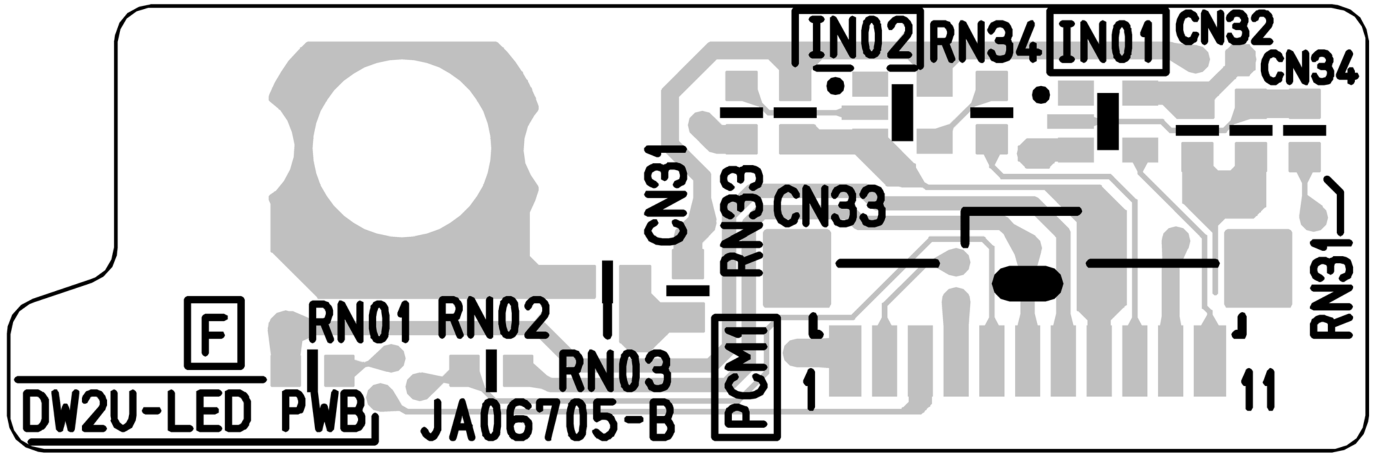
Solder side

IC
IH01 IH03 IH04 IH05
DIODE
DH01 DH02
TRANSISTOR
QH01 QH02 QH03 QH04

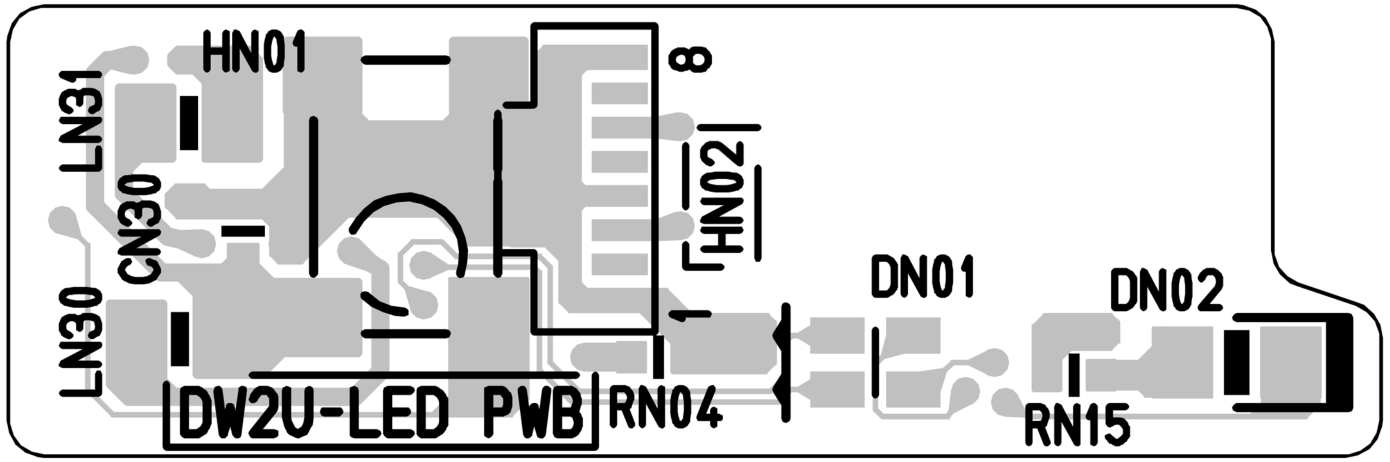
PRINTED CIRCUIT BOARDS

DW2-U LED PWB

(Component side)


IN02
RN34
IN01
CN32
CN34
CN31
RN33
CN33
RN31
F
RN01
RN02
RN03
PCM1
1
11
DW2U-LED PWB
JA06705-B

(Solder side)


HN01
8
LN31
CN30
LN30
HN02
1
DN01
DN02
RN04
RN15
DW2U-LED PWB

SEMICONDUCTOR LIST

Component side

IC
IN01 IN02

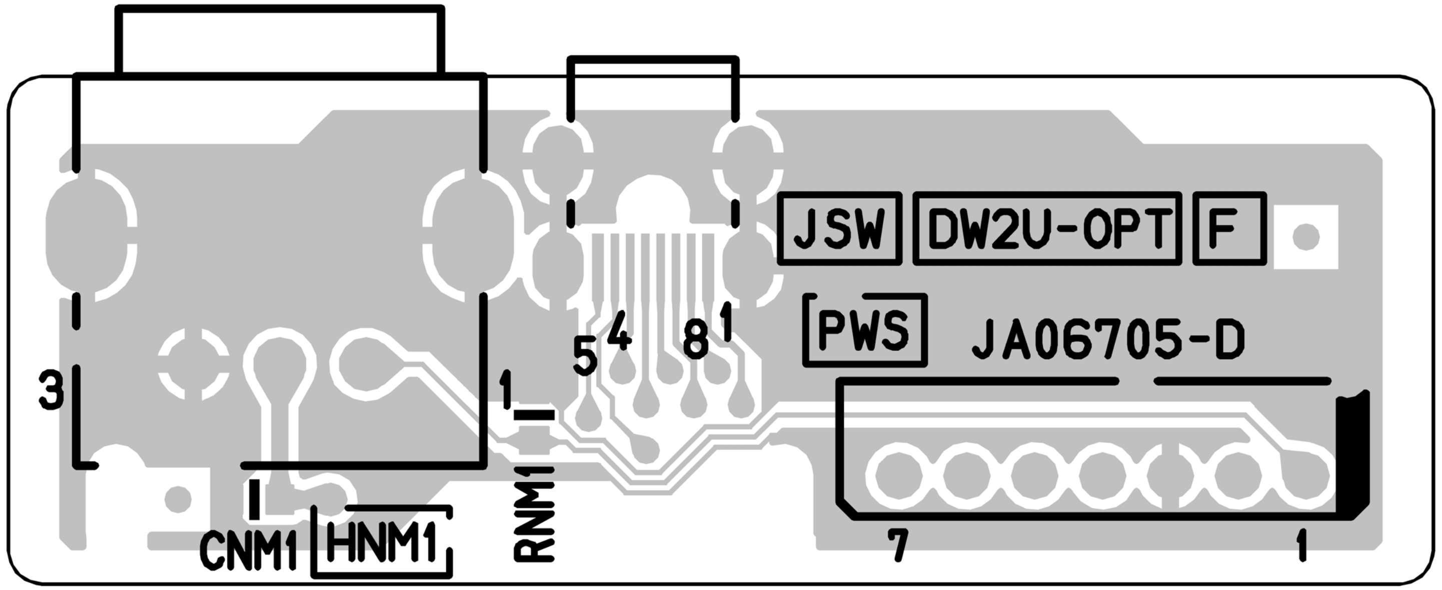
Solder side

DIODE
DN01 DN02 HN01 HN02

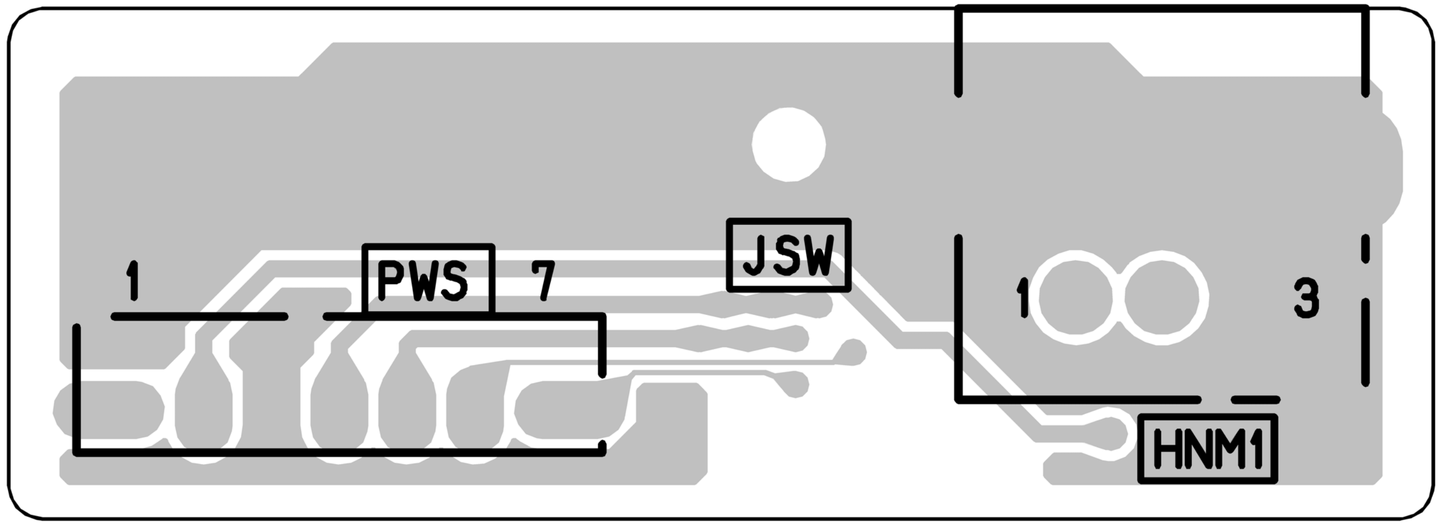
PRINTED CIRCUIT BOARDS

DW2-U OPT PWB

(Component side)


JSW
DW2U-OPT
F
PWS
JA06705-D
5
4
8
1
3
1
7
1
CNM1
HNM1
RNM1

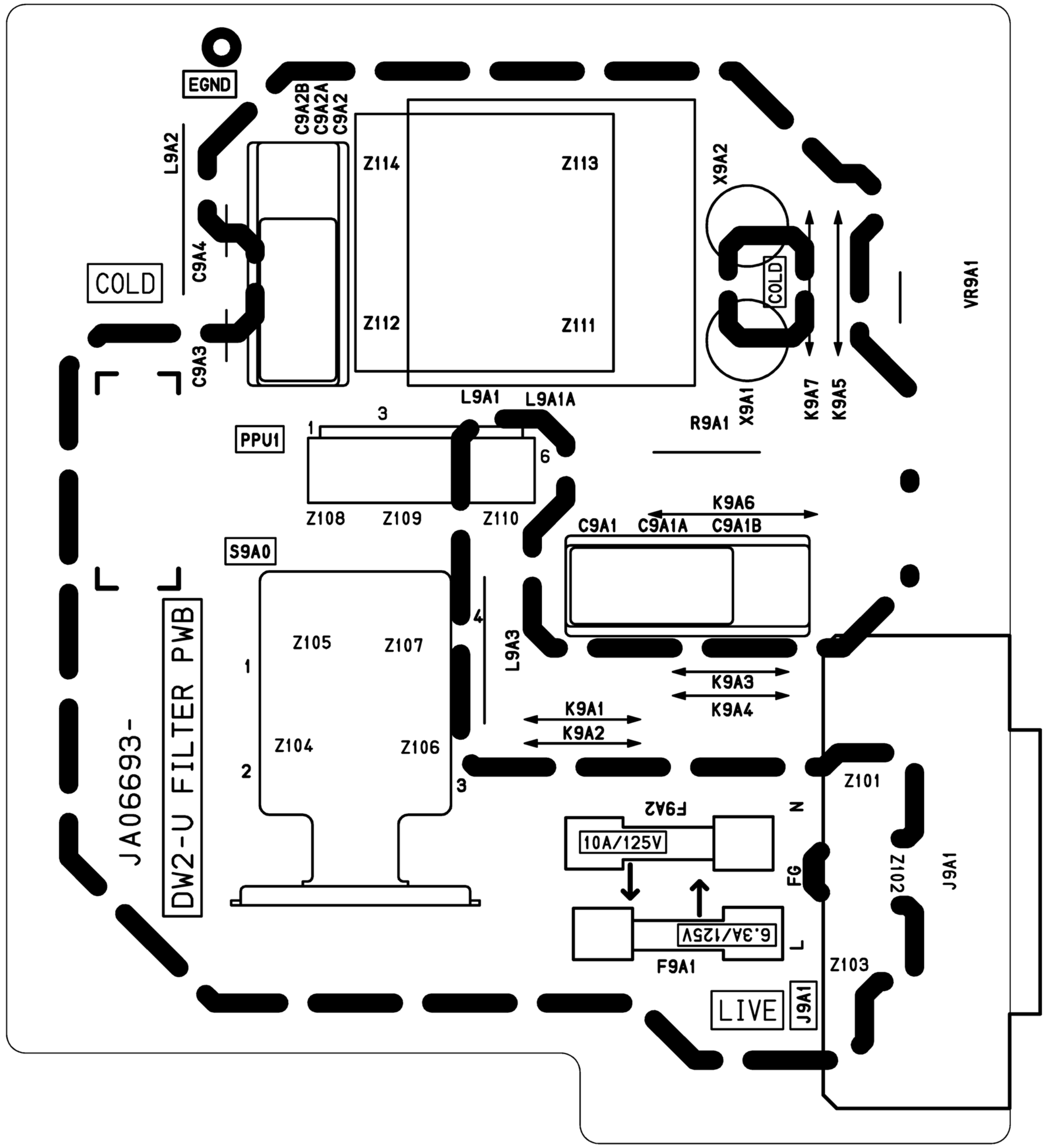
(Solder side)


1
PWS
7
JSW
1
3
HNM1

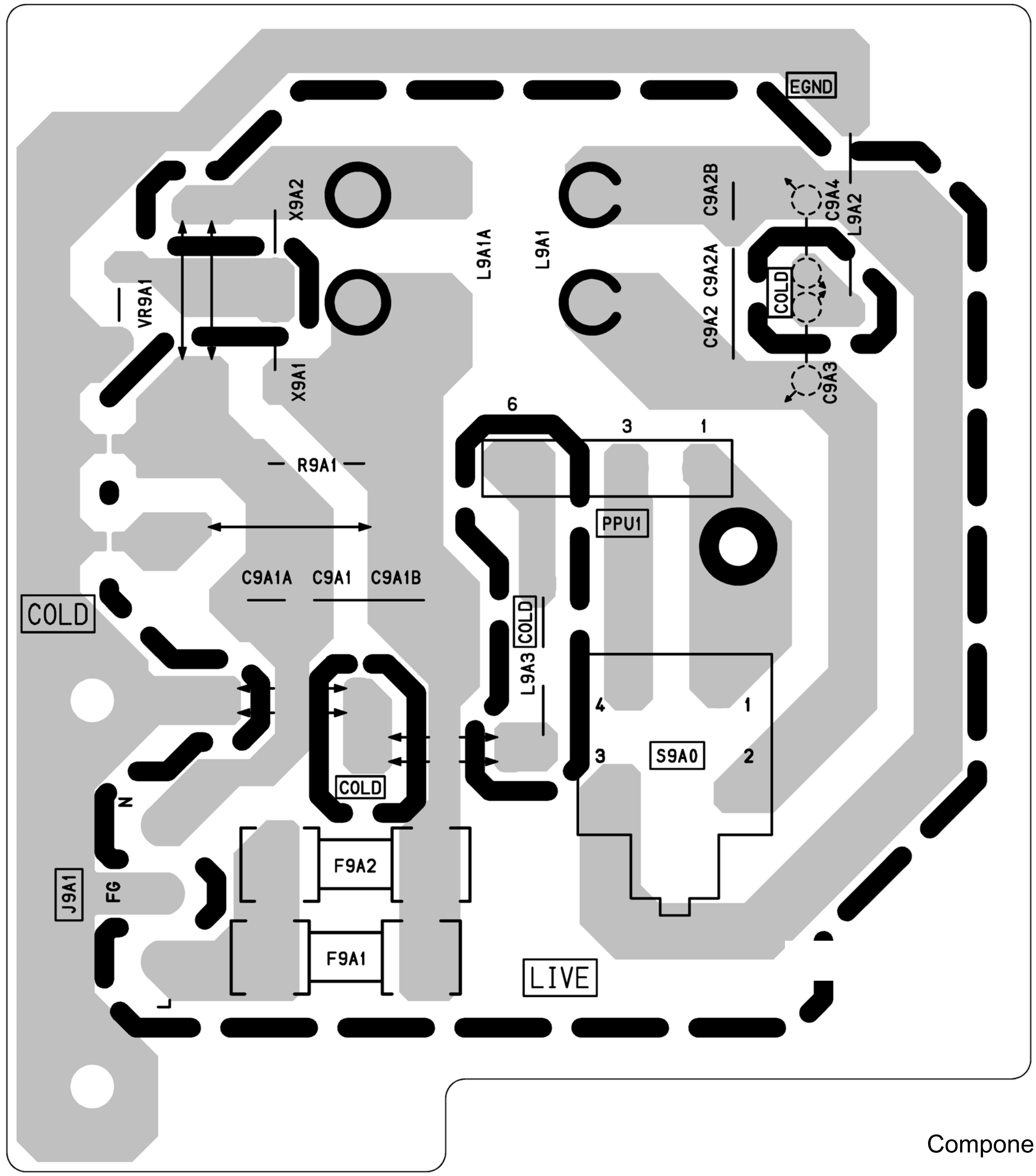
PRINTED CIRCUIT BOARDS

DW2-U FILTER PWB

(Component side)


EGND
C9A2B
C9A2A
C9A2
L9A2
Z114
Z113
X9A2
COLD
C9A4
Z112
Z111
VR9A1
C9A3
L9A1
L9A1A
K9A7
K9A5
R9A1
X9A1
PPU1
1
3
6
Z108
Z109
Z110
K9A6
C9A1
C9A1A
C9A1B
S9A0
Z105
Z107
4
1
L9A3
K9A3
K9A4
K9A1
K9A2
Z104
Z106
2
3
JA06693-
DW2-U FILTER PWB
N
Z101
F9A2
10A/125V
FG
Z102
J9A1
6.3A/125V
L
F9A1
Z103
LIVE
J9A1

(Solder side)


EGND
X9A2
L9A1A
L9A1
C9A2B
C9A4
L9A2
VR9A1
COLD
C9A2 C9A2A
X9A1
C9A3
6
3
1
R9A1
PPU1
C9A1A
C9A1
C9A1B
COLD
COLD
L9A3
4
1
3
S9A0
2
N
COLD
F9A2
J9A1
FG
F9A1
LIVE

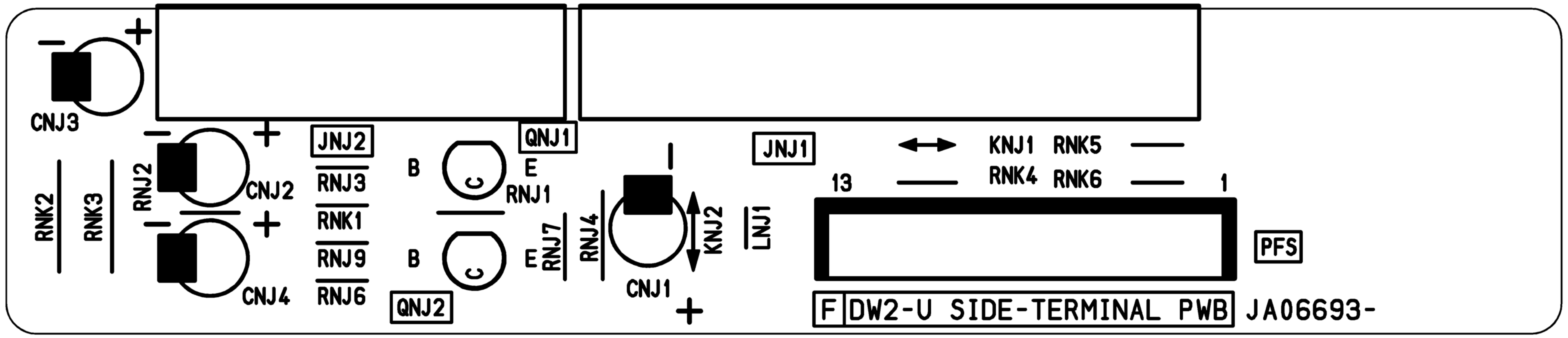
Component side

FILTER
X9A1 X9A2

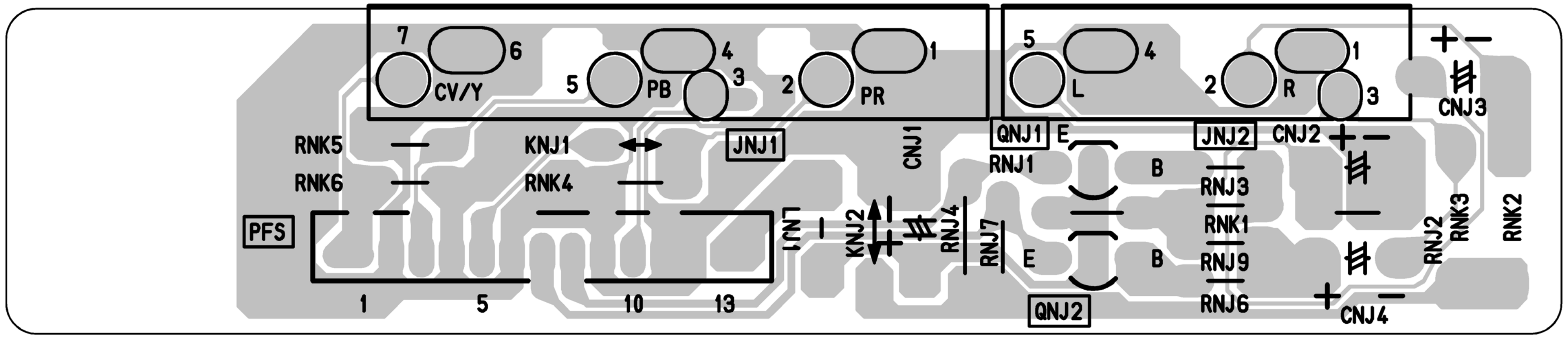
PRINTED CIRCUIT BOARDS

DW2-U SIDE TERMINAL PWB

(Component side)


CNJ3
CNJ2
CNJ4
RNK2
RNK3
RNJ2
JNJ2
RNJ3
RNK1
RNJ9
RNJ6
QNJ2
B
B
C
C
E
E
QNJ1
RNJ1
RNJ7
RNJ4
CNJ1
KNJ2
LNJ1
JNJ1
KNJ1
RNK4
RNK5
RNK6
13
1
PFS
F DW2-U SIDE-TERMINAL PWB
JA06693-

(Solder side)


7
6
CV/Y
5
PB
4
3
2
PR
1
5
L
4
2
R
1
3
CNJ3
RNK5
RNK6
KNJ1
RNK4
JNJ1
CNJ1
QNJ1
E
RNJ1
JNJ2
CNJ2
B
RNJ3
RNK1
RNJ9
RNJ6
B
E
PFS
LNJ1
KNJ2
RNJ4
RNJ7
QNJ2
CNJ4
RNJ2
RNK3
RNK2
1
5
10
13

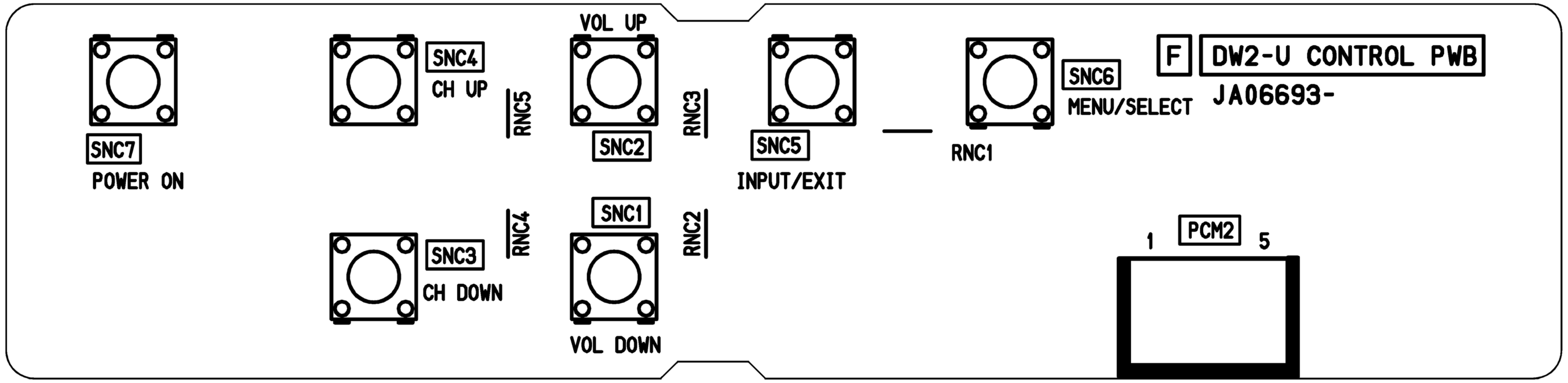
Component side

TRANSISTOR
QNJ1 QNJ2

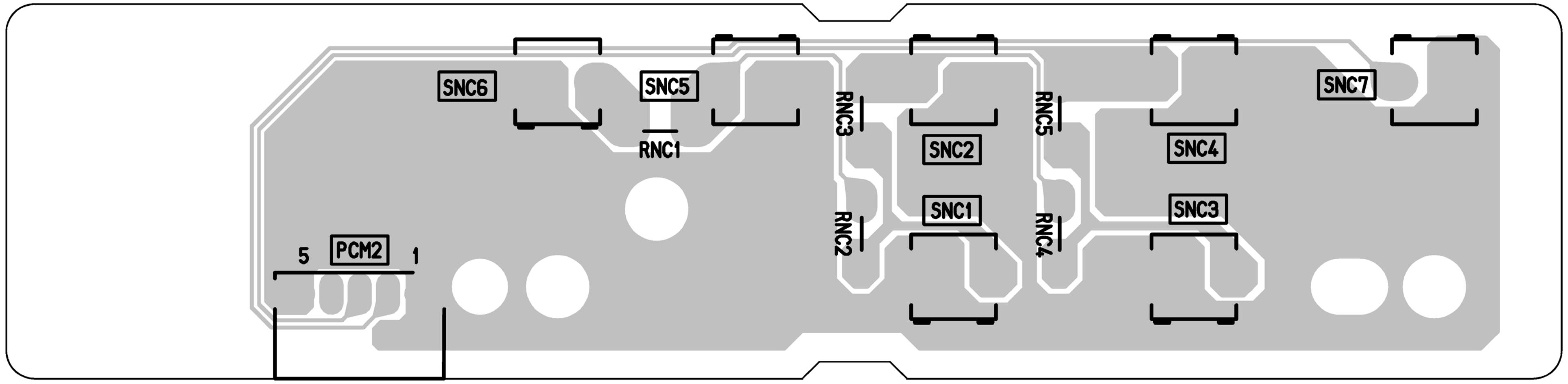
PRINTED CIRCUIT BOARDS

DW2-U CONTROL PWB

(Component side)


VOL UP
SNC4
CH UP
RNC5
RNC3
SNC6
MENU/SELECT
F
DW2-U CONTROL PWB
JA06693-
SNC7
POWER ON
SNC2
SNC5
INPUT/EXIT
RNC1
SNC1
RNC4
RNC2
1
PCM2
5
SNC3
CH DOWN
VOL DOWN

(Solder side)


SNC6
SNC5
RNC1
RNC3
SNC2
RNC5
SNC4
SNC7
SNC1
SNC3
RNC2
RNC4
5
PCM2
1

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS

Capacitors:
- AL: Aluminum Electrolytic
- CD: Ceramic Disc
- EL: Electrolitic
- PF: Polyester Film
- PP: Polypropylene
- PL: Plastic
- TA: Tantalum
- PR: Paper
- TM: Trimmer
- MC: Mylar

Resistors:
- CF: Carbon Film
- CC: Carbon Composition
- MF: Metal Oxide
- VR: Variable Resistor
- WW: Wire Wound
- FR: Fuse Resistor
- MG: Metal Grazed

Semiconductors:
- TR: Transistor
- DI: Diode
- ZD: Zener Diode
- VA: Varistor
- TH: Termistor
- IC: Integrated Circuit

SYMBOL	PART No.	DESCRIPTION	42HDS69	42HDT79	42HDX99
		SUBDIGITAL PWB			
	JP50321		0		
	JP50322			0	
	JP50323				0
		CAPACITORS			
C001	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C002	AA01343R	CERAMIC CAPACITOR(0.047UF 25V-	0	0	0
C003	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C004	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C005	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0
C006	AA01116R	CAP.CHIP1608-B-10UF 6.3V M	0	0	0
C007	AA01343R	CERAMIC CAPACITOR(0.047UF 25V-	0	0	0
C008	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C009	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C012	AA01116R	CAP.CHIP1608-B-10UF 6.3V M	0	0	0
C014	AA01123R	CCC105K10-B-16CT	0	0	0
C015	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C016	AA01123R	CCC105K10-B-16CT	0	0	0
C017	AA01123R	CCC105K10-B-16CT	0	0	0
C018	0893188R	CERAMIC CAPACITOR(47000PF 16V)	0	0	0
C019	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C020	AA01343R	CERAMIC CAPACITOR(0.047UF 25V-	0	0	0
C021	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C022	0893188R	CERAMIC CAPACITOR(47000PF 16V)	0	0	0
C023	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C024	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C025	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C026	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C027	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C028	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C029	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C030	AA01123R	CCC105K10-B-16CT	0	0	0
C031	AA01123R	CCC105K10-B-16CT	0	0	0
C032	AA01123R	CCC105K10-B-16CT	0	0	0
C033	AA01123R	CCC105K10-B-16CT	0	0	0
C034	AA01123R	CCC105K10-B-16CT	0	0	0
C035	AA01123R	CCC105K10-B-16CT	0	0	0
C038	AA01123R	CCC105K10-B-16CT	0	0	0
C039	AA01123R	CCC105K10-B-16CT	0	0	0
C040	AA01123R	CCC105K10-B-16CT	0	0	0
C041	AA01123R	CCC105K10-B-16CT	0	0	0
C042	AA01123R	CCC105K10-B-16CT	0	0	0
C043	AA01123R	CCC105K10-B-16CT	0	0	0
C044	AA01123R	CCC105K10-B-16CT	0	0	0
C045	AA01123R	CCC105K10-B-16CT	0	0	0
C046	AA01123R	CCC105K10-B-16CT	0	0	0
C047	AA01123R	CCC105K10-B-16CT	0	0	0
C048	AA01123R	CCC105K10-B-16CT	0	0	0
C049	AA01123R	CCC105K10-B-16CT	0	0	0
C060	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
C061	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
C062	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
C063	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
C078	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
C079	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	0	0	0
C080	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0
C081	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
C082	AA01185R	CAP.CHIP-CERAMIC 22UF/16V B 32	0	0	0
C083	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	0	0
C084	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
C085	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
C086	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
C087	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	0	0
C088	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
C089	AA00951R	CERAMIC CAPACITOR(1.0UF 16V)	0	0	0
C090	AA01123R	CCC105K10-B-16CT	0	0	0
C091	AA01123R	CCC105K10-B-16CT	0	0	0
C092	AA01123R	CCC105K10-B-16CT	0	0	0
C093	AA01113R	CCC225K06-B-16CT	0	0	0
C094	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	0	0
C096	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	0	0
C097	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	0	0
C0A1	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
C0A2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	0	0
C0A3	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
C0A4	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	0	0
C0A5	AA01121R	CERAMIC CAPACITOR(0.47UF 10V)	0	0	0
C0A6	AA01121R	CERAMIC CAPACITOR(0.47UF 10V)	0	0	0
C0K0	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
C0K1	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C0K2	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
C0K3	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	0	0	0
CH01	0893333R	CAP.CHIP-CERAMIC 10000PF 16V TAPE	0	0	0
CH02	CE00151R	EZJZ0V80010	0	0	0
CH03	CE00151R	EZJZ0V80010	0	0	0
CH04	CE00151R	EZJZ0V80010	0	0	0
CH05	CE00151R	EZJZ0V80010	0	0	0
CH06	CE00151R	EZJZ0V80010	0	0	0
CH07	CE00151R	EZJZ0V80010	0	0	0
CH08	CE00151R	EZJZ0V80010	0	0	0
CH09	CE00151R	EZJZ0V80010	0	0	0
CH10	CE00151R	EZJZ0V80010	0	0	0
CH13	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH14	AA01116R	CAP.CHIP1608-B-10UF 6.3V M	0	0	0
CH15	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH16	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH17	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH18	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH19	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH20	0893333R	CAP.CHIP-CERAMIC 10000PF 16V TAPE	0	0	0
CH21	CE00151R	EZJZ0V80010	0	0	0
CH22	CE00151R	EZJZ0V80010	0	0	0
CH23	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH24	AA01116R	CAP.CHIP1608-B-10UF 6.3V M	0	0	0
CH25	AA01116R	CAP.CHIP1608-B-10UF 6.3V M	0	0	0
CH26	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	0	0
CH27	AA01216R	CAP.CHIP-CERAMIC 1005B 1UF 6.3	0	0	0
CH28	AA01216R	CAP.CHIP-CERAMIC 1005B 1UF 6.3	0	0	0
CH29	CE00151R	EZJZ0V80010	0	0	0
CH30	CE00151R	EZJZ0V80010	0	0	0
CL01	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CL11	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CL12	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CL13	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0	0	0
CL21	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CL22	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CL23	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CM01	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0
CM02	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE			0
CM03	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)		0	0
CM06	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0
CM07	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0
CM08	AA00955R	CAP.CHIP-CERAMIC 2125 B 4.7UF		0	0
CM09	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0
CM10	0893199R	CAP 1608CHIP 220PFKB 50V TAPE		0	0
CM11	0893199R	CAP 1608CHIP 220PFKB 50V TAPE		0	0
CM12	AA01812R	CCC153K50-B-16CT		0	0
CM13	AA01812R	CCC153K50-B-16CT		0	0
CM14	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0
CM15	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0
CM16	AA01123R	CCC105K10-B-16CT	0	0	0
CM17	AA01123R	CCC105K10-B-16CT	0	0	0
CP07	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CP13	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CP14	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0
CP18	AA01185R	CAP.CHIP-CERAMIC 22UF/16V B 32		0	0
CP19	AA01185R	CAP.CHIP-CERAMIC 22UF/16V B 32		0	0
CP20	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0
CP21	AA00699R	CAP.CHIP-CERAMIC 10UFK 16V B 3		0	0
CP22	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK		0	0
CP23	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE		0	0
CP24	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE		0	0
CPS1	AA01123R	CCC105K10-B-16CT	0	0	0
CPS2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CPS3	0893211R	CAP 1608CHIP 1500PFKB 50V TAPE	0	0	0
CPS4	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE	0	0	0
CPS5	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CPS6	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE	0	0	0
CPS7	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0
CPT2	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CPT3	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
CPT5	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0
CPT7	0893215R	CAP 1608CHIP 3300PFKB 50V TAPE	0	0	0
CPT8	0893188R	CERAMIC CAPACITOR(47000PF 16V)	0	0	0

SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
CT03	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT04	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT11	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT12	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0
CT15	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT16	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT17	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT18	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT19	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT20	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT21	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT22	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT23	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT24	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT25	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT26	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT27	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT28	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT29	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT30	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT31	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT32	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT33	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT34	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT35	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT36	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT37	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT38	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT39	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT40	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT41	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT42	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT43	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT44	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT45	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT46	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT47	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT48	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT49	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT50	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT51	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT52	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT53	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT54	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT55	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT56	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT57	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT58	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT59	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT60	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT61	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT62	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT63	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT64	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT65	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CT66	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT67	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CT68	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT69	AA01173R	CCC1R0K50-B-32CT 1UF/50V-B-3225	0	0	0
CT71	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CT72	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT73	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT74	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT75	AA01802R	CCC103K50-B-16CT MCH18	0	0	0
CT76	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT77	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0
CT78	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0
CT79	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT80	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT81	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT83	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT84	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0
CT85	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CT86	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CT89	0893123R	CAP 1608CHIP 56PFJCH 50V TAPE	0	0	0

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99	SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
CT90	0893124R	CAP 1608CHIP 68PFJCH 50V TAPE	0	0	0	CY10	AD00633R	CEC471M16-EWMT 105	0	0	0
CT91	0893115R	CAP 1608CHIP 15PFJCH 50V TAPE	0	0	0	CY11	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CT92	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	CY12	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CT93	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	CY13	AA01123R	CCC105K10-B-16CT	0	0	0
CT95	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	CY14	AA01123R	CCC105K10-B-16CT	0	0	0
CT96	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	CY15	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CT97	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	CY16	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)	0	0	0
CTA1	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0						
CTA3	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0			**DIODES**			
CTC1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	D001	CC01921R	SDS142WKF_PF	0	0	0
CTC2	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	DH02	CC01891R	SDS511_PF	0	0	0
CTC3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DM01	CC01891R	SDS511_PF		0	0
CTC4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DM02	CC01891R	SDS511_PF		0	0
CTC5	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DP01	CC01891R	SDS511_PF	0	0	0
CTC6	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DP02	CC01891R	SDS511_PF	0	0	0
CTC8	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DP10	CC02075R	ZENER.CHIP EDZ TE61 5.1B		0	0
CTC9	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DPS1	CC02022R	ZENER.CHIP UDZSTE-1730B	0	0	0
CTE1	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	0	0	DPS2	CC01891R	SDS511_PF	0	0	0
CTE2	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	0	0	DPT1	CC02211R	RSX201L-30	0	0	0
CTE3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DT02	CC01131R	ZENER.CHIP MAZS3000H	0	0	0
CTE4	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0	DY01	CC01999R	ZENER.CHIP UDZSTE-174.3B		0	0
CTE5	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	DY02	CC01999R	ZENER.CHIP UDZSTE-174.3B		0	0
CTF2	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0						
CTF3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0			**INTEGRATED CIRCUITS (IC's)**			
CTF4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	I001	CK53531U	R2S11008FP	0	0	0
CTF6	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	I004	CK51331R	TK11100CS	0	0	0
CTF7	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	I005	CK37218R	MONO IC TK11150CSCL	0	0	0
CTF8	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0	IH02	CK53891R	TMDS SW IC CXB1441R	0	0	0
CTF9	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IH03	CK37216R	MONO IC TK11133CSCL	0	0	0
CTG1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IH04	CK38329R	DIGITAL MONOLITHIC IC (SN74LVC	0	0	0
CTG2	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0	IH05	CK38329R	DIGITAL MONOLITHIC IC (SN74LVC	0	0	0
CTG3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IL01	CK50961R	SN74CB3T3306DCUR	0	0	0
CTG4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IM01	CK51632R	9DR32DW8-1046		0	0
CTG5	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0	IM02	CK51091R	SN74LVC1G3157DCKR		0	0
CTG6	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IM03	CK38328R	IC SN74LVC1G125DCKR			0
CTG9	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IM04	CK38328R	IC SN74LVC1G125DCKR		0	0
CTH1	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0	IM05	2015203R	HD74HC00TELLE		0	0
CTH2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IM06	CK54692R	GENERAL LOGIC IV(TC74AC163FT)		0	0
CTH6	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	IM07	CK51091R	SN74LVC1G3157DCKR		0	0
CTH7	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	IM08	CK37218R	MONO IC TK11150CSCL	0	0	0
CTJ4	0893125R	CAP 1608CHIP 82PFJCH 50V TAPE	0	0	0	IP03	CK52481R	TK73400TCB-G	0	0	0
CTJ5	0893119R	CAP 1608CHIP 33PFJCH 50V TAPE	0	0	0	IP05	CK50461R	ANALOG MONOLITHIC IC(BA6287F-		0	0
CTJ6	0893106R	CAP 1608CHIP 4PFCCK 50V TAPE	0	0	0	IPT1	CK54161R	ANALOG MONOLITHIC IC(MP2361DK	0	0	0
CTJ7	0893124R	CAP 1608CHIP 68PFJCH 50V TAPE	0	0	0	IT02	CK54051U	THEATER314	0	0	0
CTJ8	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	0	0	IT03	CK51091R	SN74LVC1G3157DCKR	0	0	0
CTK3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IT04	CK50961R	SN74CB3T3306DCUR	0	0	0
CTK4	0893113R	CAP 1608CHIP 10PFCCH 50V TAPE	0	0	0	IT05	CK37218R	MONO IC TK11150CSCL	0	0	0
CTK5	0893113R	CAP 1608CHIP 10PFCCH 50V TAPE	0	0	0	IT06	CK37605R	IC TK11250CM	0	0	0
CTK6	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0	IT07	CK37605R	IC TK11250CM	0	0	0
CTK7	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IT09	CK51151R	UPC3221GV	0	0	0
CTK8	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	0	0	IT10	CK51141R	UPC3220GR	0	0	0
CTK9	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0	IT11	CK37211R	MONO IC TK11118CSCL	0	0	0
CTM1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IT12	CK37216R	MONO IC TK11133CSCL	0	0	0
CTM2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IY01	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC		0	0
CTM3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IY02	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC		0	0
CTM4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	IY03	CK50027R	DIGITAL MONOLITHIC IC (MAX202I	0	0	0
CTM5	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0						
CTM6	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0			**COILS**			
CTM7	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	L001	BA00887R	LBC2518 CHIP COIL 10UH	0	0	0
CTM8	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	L002	BA00887R	LBC2518 CHIP COIL 10UH	0	0	0
CTM9	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0	L005	BA00887R	LBC2518 CHIP COIL 10UH	0	0	0
CTN1	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0	L006	BA00887R	LBC2518 CHIP COIL 10UH	0	0	0
CTN2	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0	L008	BA00887R	LBC2518 CHIP COIL 10UH	0	0	0
CTN3	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0	L009	BA00887R	LBC2518 CHIP COIL 10UH	0	0	0
CTN4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0	LM01	BA00894R	LBC2518 CHIP COIL 100UH		0	0
CTN5	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	LM02	BA00894R	LBC2518 CHIP COIL 100UH			0
CY01	AA01185R	CAP.CHIP-CERAMIC 22UF/16V B 32		0	0	LM03	BA00894R	LBC2518 CHIP COIL 100UH		0	0
CY02	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE		0	0	LP04	BA01164R	GLC2518 CHIP INDUCTOR 10UH	0	0	0
CY03	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE		0	0	LPS1	BA02185R	HCC221J2520CT	0	0	0
CY04	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE		0	0	LPS2	BA02244R	HCC102J32CT	0	0	0
CY05	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE		0	0	LPT1	BA02251R	7E06NG TYPE POWER INDUCTOR 4.7	0	0	0
CY06	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0	LT10	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
CY07	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE		0	0	LT11	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
CY08	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	0	0	LT12	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
CY09	AD00633R	CEC471M16-EWMT 105	0	0	0	LT13	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
LT16	BM00151R	FILTER BLM21P300SPT	0	0	0
LT17	BA00161R	COIL HCC47NK16CT-HK1608	0	0	0
LT18	BA01227R	HK2125 TYPE CHIP INDUCTOR 150N	0	0	0
LT19	BA00162R	CHIP COIL 56NK16CT-HK1608	0	0	0
LT20	BA01127R	MLF2012 CHIP INDUCTOR 1.8UH	0	0	0
LT25	BA00189R	CHIP COIL 33NJ16CT-HK1608	0	0	0
LT26	BA01234R	HK2125 TYPE CHIP INDUCTOR 470N	0	0	0
LT27	BA01225R	HK2125 TYPE CHIP INDUCTOR 100N	0	0	0
LT28	BA00191R	COIL HCC39NJ16CT-HK1608	0	0	0
LT29	BA01127R	MLF2012 CHIP INDUCTOR 1.8UH	0	0	0
LT30	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LT31	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LT32	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LT34	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LT35	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LT36	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LT37	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0	0	0
LY01	BA00894R	LBC2518 CHIP COIL 100UH	0	0	0
		TRANSISTORS			
Q001	CA02162R	SUT487J	0	0	0
Q002	CA02162R	SUT487J	0	0	0
Q007	1323294R	TRS.CHIP 2SA1774 TL (R/S)	0	0	0
Q008	1323294R	TRS.CHIP 2SA1774 TL (R/S)	0	0	0
Q009	1323294R	TRS.CHIP 2SA1774 TL (R/S)	0	0	0
Q010	1323294R	TRS.CHIP 2SA1774 TL (R/S)	0	0	0
Q011	CA01181R	D-TRS.CHIP IMD10A	0	0	0
Q012	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	0	0	0
Q013	CA14091R	PHOTO TRANSISTOR	0	0	0
Q014	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	0	0	0
Q015	CA02162R	SUT487J	0	0	0
Q016	1323294R	TRS.CHIP 2SA1774 TL (R/S)	0	0	0
QH01	1323293R	TRS.CHIP 2SC4617 TL (R/S)	0	0	0
QH02	1323293R	TRS.CHIP 2SC4617 TL (R/S)	0	0	0
QH04	1323293R	TRS.CHIP 2SC4617 TL (R/S)	0	0	0
QL01	CA02091R	SRC1204EF_PF	0	0	0
QM01	CA02091R	SRC1204EF_PF		0	0
QM02	CA02142R	TRS.CHIP 2SC5343UFG_PF		0	0
QM03	CA02091R	SRC1204EF_PF		0	0
QM04	1323294R	TRS.CHIP 2SA1774 TL (R/S)		0	0
QP04	1323294R	TRS.CHIP 2SA1774 TL (R/S)		0	0
QP05	CA14091R	PHOTO TRANSISTOR		0	0
QP06	CA02091R	SRC1204EF_PF		0	0
QPS1	CA14091R	PHOTO TRANSISTOR	0	0	0
QT01	CA14091R	PHOTO TRANSISTOR	0	0	0
QT02	CA14091R	PHOTO TRANSISTOR	0	0	0
QT03	CA02171R	TRS.CHIP 2SC4082T106P	0	0	0
QT04	CA02171R	TRS.CHIP 2SC4082T106P	0	0	0
QT05	CA02171R	TRS.CHIP 2SC4082T106P	0	0	0
QT06	CA14091R	PHOTO TRANSISTOR	0	0	0
QT07	CA14091R	PHOTO TRANSISTOR	0	0	0
QY01	CA11641R	PHOTO TRANSISTOR		0	0
QY02	CA11641R	PHOTO TRANSISTOR		0	0
QY03	1323294R	TRS.CHIP 2SA1774 TL (R/S)		0	0
		RESISTORS			
R001	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R002	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R003	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R004	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R005	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R006	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R007	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R008	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R009	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R011	AQ00457R	RES.-CHIP 1/16W 1.0K-J (2 UNIT)	0	0	0
R012	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R013	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R014	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R019	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R020	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R024	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
R025	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
R026	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R027	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0

SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
R028	AQ00421R	CHIP RESISTOR 1608(2)0OHM	0	0	0
R029	AQ00457R	RES.-CHIP 1/16W 1.0K-J (2 UNIT)	0	0	0
R032	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R033	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R034	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R035	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R036	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R037	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R038	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R039	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
R040	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
R041	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
R043	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
R045	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R046	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R047	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R048	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R049	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R050	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R069	AQ00519R	CHIP RESISTOR 47OHM	0	0	0
R070	AQ00519R	CHIP RESISTOR 47OHM	0	0	0
R071	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
R072	AQ00484R	RES.-CHIP 1/16W 100K-J (2 UNIT	0	0	0
R073	AQ00484R	RES.-CHIP 1/16W 100K-J (2 UNIT	0	0	0
R074	AQ00484R	RES.-CHIP 1/16W 100K-J (2 UNIT	0	0	0
R075	AQ00484R	RES.-CHIP 1/16W 100K-J (2 UNIT	0	0	0
R076	AQ00484R	RES.-CHIP 1/16W 100K-J (2 UNIT	0	0	0
R082	AQ00457R	RES.-CHIP 1/16W 1.0K-J (2 UNIT)	0	0	0
R083	AQ00457R	RES.-CHIP 1/16W 1.0K-J (2 UNIT)	0	0	0
R088	AQ00544R	CHIP RESISTOR 3.3KOHM	0	0	0
R096	0790015R	RES.CHIP 1/16W 22 OHM	0	0	0
R099	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
R0A0	0790015R	RES.CHIP 1/16W 22 OHM	0	0	0
R0A1	0790015R	RES.CHIP 1/16W 22 OHM	0	0	0
R0A2	0790015R	RES.CHIP 1/16W 22 OHM	0	0	0
R0A3	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
R0A4	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
R0A5	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
R0A6	0790015R	RES.CHIP 1/16W 22 OHM	0	0	0
R0A7	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
R0C3	AQ00448R	CHIP RESISTOR 220 1608	0	0	0
R0C4	AQ00483R	CHIP RESISTOR 82K 1608	0	0	0
R0C9	AQ00457R	RES.-CHIP 1/16W 1.0K-J (2 UNIT)	0	0	0
R0E1	AQ00471R	RES.-CHIP 1/16W 10K-J (2 UNIT)	0	0	0
R0E2	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
R0G4	AQ00266R	RES.CHIP 1/16W 510K OHM TAPE	0	0	0
R0G5	AQ00245R	RES.CHIP 1/16W 82K OHM TAPE	0	0	0
R0G7	0790059R	RES.CHIP 1/16W 47K OHM	0	0	0
R0G8	0790059R	RES.CHIP 1/16W 47K OHM	0	0	0
R0G9	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
R0H0	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
R0H1	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0
R0H2	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0
R0H3	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0
R0H4	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0
R0H5	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
R0H6	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
R0H7	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
R0H8	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
R0H9	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
R0J2	0790073R	RES.CHIP 1/16W 470K OHM	0	0	0
R0K0	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R0K1	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R0K2	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R0K3	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0
R0K4	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R0K5	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R0K6	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
R0K7	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RH01	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH02	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH03	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH04	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH05	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH06	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
RH07	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH08	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH09	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH10	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH11	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH12	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH13	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH14	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0
RH15	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH17	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RH18	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH19	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RH20	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RH22	0790059R	RES.CHIP 1/16W 47K OHM	0	0	0
RH23	0790059R	RES.CHIP 1/16W 47K OHM	0	0	0
RH24	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0
RH25	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0
RH26	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH28	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH29	AQ00212R	RES.CHIP 1/16W 4.7K OHM TAPE	0	0	0
RH30	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH31	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH32	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH33	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH34	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH35	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH36	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH37	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RH38	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH39	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH40	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH41	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RH43	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RH44	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RL01	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0
RL02	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RL03	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RL04	AQ00471R	RES.-CHIP 1/16W 10K-J (2 UNIT)	0	0	0
RL05	AQ00421R	CHIP RESISTOR 1608(2)0OHM	0	0	0
RL11	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
RL12	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
RL21	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RL22	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RL23	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RL24	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
RL25	AQ00439R	CHIP RESISTOR 47 1608	0	0	0
RL26	AQ00421R	CHIP RESISTOR 1608(2)0OHM	0	0	0
RL27	AQ00551R	CHIP RESISTOR 10KOHM	0	0	0
RL28	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RL41	AQ00551R	CHIP RESISTOR 10KOHM	0	0	0
RL43	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RL44	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RL51	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RL52	AQ00551R	CHIP RESISTOR 10KOHM	0	0	0
RM01	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RM02	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RM03	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RM05	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM06	0790037R	RES.CHIP 1/16W 1.0K OHM			0
RM07	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RM08	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RM09	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RM10	0790047R	RES.CHIP 1/16W 5.6K OHM		0	0
RM11	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM12	0790037R	RES.CHIP 1/16W 1.0K OHM		0	0
RM13	0790077R	RES.CHIP 1/16W 1.0M OHM		0	0
RM14	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RM15	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RM16	0790047R	RES.CHIP 1/16W 5.6K OHM		0	0
RM17	0790019R	RES.CHIP 1/16W 47 OHM		0	0
RM18	0790047R	RES.CHIP 1/16W 5.6K OHM		0	0
RM19	0790061R	RES.CHIP 1/16W 56K OHM		0	0
RM20	0790062R	RES.CHIP 1/16W 68K OHM		0	0
RM21	0790041R	RES.CHIP 1/16W 1.8K OHM		0	0
RM22	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM23	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM24	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM25	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM27	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RM28	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RM29	0790077R	RES.CHIP 1/16W 1.0M OHM		0	0
RM30	0790044R	RES.CHIP 1/16W 3.3K OHM		0	0
RM31	0790037R	RES.CHIP 1/16W 1.0K OHM		0	0
RM32	0790051R	RES.CHIP 1/16W 10K OHM	0		
RP03	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RP06	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RP07	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RP12	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RP18	0790073R	RES.CHIP 1/16W 470K OHM	0	0	0
RP19	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RP29	0196116R	RES.-1608CHIP 1/16W 91K-J TAPE	0	0	0
RP30	0790055R	RES.CHIP 1/16W 22K OHM	0	0	0
RP45	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RP46	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RP47	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RP49	AQ01954R	RES.CHIP RK73B3ATTE 5R6J		0	0
RP50	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RP51	AQ01938R	RES.CHIP RK73B3ATTE 1R5J		0	0
RP52	0790037R	RES.CHIP 1/16W 1.0K OHM		0	0
RP53	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0		
RP53	0790077R	RES.CHIP 1/16W 1.0M OHM		0	0
RP55	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RP56	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RP57	0790051R	RES.CHIP 1/16W 10K OHM		0	0
RP58	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0		
RP60	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RP61	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RP62	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RP63	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RP64	0790051R	RES.CHIP 1/16W 10K OHM	0		
RP65	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0
RPG1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RPG2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RPG3	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RPG4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RPS1	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RPS2	0790059R	RES.CHIP 1/16W 47K OHM	0	0	0
RPS3	0790055R	RES.CHIP 1/16W 22K OHM	0	0	0
RPT1	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE	0	0	0
RPT2	AQ00221R	RES.CHIP 1/16W 10K OHM TAPE	0	0	0
RPT3	AQ00212R	RES.CHIP 1/16W 4.7K OHM TAPE	0	0	0
RPT4	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RPT6	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RPT7	AQ00178R	RES.CHIP 1/16W 270 OHM TAPE	0	0	0
RT01	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT02	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT03	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT04	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT05	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT08	0790032R	RES.CHIP 1/16W 390 OHM	0	0	0
RT11	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT12	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RT13	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RT14	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RT15	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RT16	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT17	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT18	0790006R	RES.CHIP 1/16W 4.7 OHM	0	0	0
RT19	0790006R	RES.CHIP 1/16W 4.7 OHM	0	0	0
RT22	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT23	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT24	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT25	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RT31	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT32	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT33	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RT34	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT35	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT36	AQ00431R	CHIP RESISTOR 10 OHM 1608	0	0	0
RT37	0196881R	RES 2125CHIP 1/10W 510-F TAPE	0	0	0

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99	SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
RT38	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	RY34	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT39	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	RY35	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT40	0790052R	RES.CHIP 1/16W 12K OHM	0	0	0	RY36	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RT41	0790052R	RES.CHIP 1/16W 12K OHM	0	0	0	RY37	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT43	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	RY38	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT44	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	0	0	RY39	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT45	0790043R	RES.CHIP 1/16W 2.7K OHM	0	0	0	RY40	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT46	AQ00258R	RES.CHIP 1/16W 270K OHM TAPE	0	0	0	RY41	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT47	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0	0	0	RY42	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT48	AQ00229R	RES.CHIP 1/16W 22K OHM TAPE	0	0	0	RY43	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT50	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0	RY44	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT51	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0	RY45	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0
RT52	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0	RY46	0790056R	RES.CHIP 1/16W 27K OHM		0	0
RT53	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0						
RT55	0790052R	RES.CHIP 1/16W 12K OHM	0	0	0			**CRYSTALS, FILTERS**			
RT56	AQ00212R	RES.CHIP 1/16W 4.7K OHM TAPE	0	0	0	XM01	BL01182R	CSTCE16M0V53-R0		0	0
RT57	AQ00244R	RES.CHIP 1/16W 75K OHM TAPE	0	0	0	XM02	BP01231	OSX-OSBLA455KEC8-B0		0	0
RT58	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0	XPT1	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0	0	0
RT59	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0	XT01	BG01624U	SAW FILTER(X6875D)	0	0	0
RT60	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	XT02	BN00261	BGS TRAP MKTGA47M2CAHP00B05	0	0	0
RT61	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0	XT03	BG01625U	SAW FILTER(X6888D)	0	0	0
RT62	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0	XT04	BL01491R	OSC25R14X10T	0	0	0
RT63	0790011R	RES.CHIP 1/16W 10 OHM	0	0	0	XT06	BK00199R	CERAMIC FILTER 2012TYPE	0	0	0
RT64	0790011R	RES.CHIP 1/16W 10 OHM	0	0	0	XT07	BK00199R	CERAMIC FILTER 2012TYPE	0	0	0
RT65	0790011R	RES.CHIP 1/16W 10 OHM	0	0	0	XT08	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0	0	0
RT66	AQ00511R	CHIP RESISTOR 10OHM	0	0	0	XT09	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0	0	0
RT67	AQ00511R	CHIP RESISTOR 10OHM	0	0	0	XT10	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0	0	0
RT74	0790043R	RES.CHIP 1/16W 2.7K OHM	0	0	0	XT11	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0	0	0
RT75	0790043R	RES.CHIP 1/16W 2.7K OHM	0	0	0						
RT76	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0			**CONNECTORS, JACKS**			
RT77	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	JH01	EA02291U	HDMI RECEPTACLE DC1R019HBA	0	0	0
RT78	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	JY01	EQ00722	JACK YKC51-0002V 10P(2*5)	0	0	0
RT79	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	JY02	EQ00733	JACK YKC52-0002V(3S+10P)	0	0	0
RT80	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0	JY03	EQ00741	JACK		0	0
RT81	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0	JY04	EQ00741	JACK		0	0
RT82	0790032R	RES.CHIP 1/16W 390 OHM	0	0	0	JY05	EQ00771	JACK	0	0	0
RT83	0790052R	RES.CHIP 1/16W 12K OHM	0	0	0	PFA1	EA02192R	3P SMT ZH CONN. POST SIDE	0	0	0
RT84	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	PFA2	EA02192R	3P SMT ZH CONN. POST SIDE	0	0	0
RT85	0790037R	RES.CHIP 1/16W 1.0K OHM	0	0	0	PH01	EA02651R	PLUG	0	0	0
RT86	0790028R	RES.CHIP 1/16W 220 OHM	0	0	0	PH02	EA02341R	2P 1.0MM PITCH CONNE. -501568-	0	0	0
RT87	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	PSM	EA02222U	0.5 PITCH 200P B TO B CONN. SH	0	0	0
RT88	0790041R	RES.CHIP 1/16W 1.8K OHM	0	0	0	PTF	EA02203R	13P SMT ZH CONN. POST SIDE	0	0	0
RT89	0790042R	RES.CHIP 1/16W 2.2K OHM	0	0	0	PTW	ED01075	PLUG	0	0	0
RT90	0790042R	RES.CHIP 1/16W 2.2K OHM	0	0	0						
RT98	0790055R	RES.CHIP 1/16W 22K OHM	0	0	0			**MISCELLANEOUS**			
RY01	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0	UT01	HC00701	ENGD6305	0	0	0
RY02	0790059R	RES.CHIP 1/16W 47K OHM		0	0	#TG1	MF02032	GASKET 5-2-15 J1G	0	0	0
RY03	0790064R	RES.CHIP 1/16W 100K OHM		0	0	#TG2	MF02033	GASKET 5-2-45 J1G	0	0	0
RY04	0790012R	RES.CHIP 1/16W 12 OHM		0	0						
RY05	0790012R	RES.CHIP 1/16W 12 OHM		0	0			**FILTER PWB**			
RY06	0790012R	RES.CHIP 1/16W 12 OHM		0	0		JP50331		0	0	0
RY07	0790012R	RES.CHIP 1/16W 12 OHM		0	0						
RY09	0790024R	RES.CHIP 1/16W 100 OHM		0	0			**CAPACITORS**			
RY10	0790031R	RES.CHIP 1/16W 330 OHM		0	0	C9A1B ⚠	AN02089S	PLASTIC FILM CAP.CQ-105K251PVS	0	0	0
RY11	AQ00523R	CHIP RESISTOR 82OHM		0	0	C9A2A ⚠	AN02087S	PLASTIC FILM CAP.CQ-474K251PVS	0	0	0
RY12	AQ00528R	CHIP RESISTOR 220OHM		0	0	C9A3 ⚠	AJ00163R	CAP. CERAMIC CS11-E2GA222MYVS	0	0	0
RY13	0790031R	RES.CHIP 1/16W 330 OHM		0	0	C9A4 ⚠	AJ00163R	CAP. CERAMIC CS11-E2GA222MYVS	0	0	0
RY14	AQ00523R	CHIP RESISTOR 82OHM		0	0	CNJ1	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	0	0	0
RY15	AQ00528R	CHIP RESISTOR 220OHM		0	0	CNJ2	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	0	0	0
RY16	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608		0	0	CNJ3	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	0	0	0
RY17	0790028R	RES.CHIP 1/16W 220 OHM		0	0	CNJ4	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	0	0	0
RY18	0790028R	RES.CHIP 1/16W 220 OHM		0	0						
RY19	0790028R	RES.CHIP 1/16W 220 OHM		0	0			**JUMPERS**			
RY20	0790028R	RES.CHIP 1/16W 220 OHM		0	0	K9A5	2784381M	0.60MM TAPED JUMP.WIRE	0	0	0
RY21	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	0	0	0	K9A6	2784381M	0.60MM TAPED JUMP.WIRE	0	0	0
RY22	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	0	0	0	K9A7	2784381M	0.60MM TAPED JUMP.WIRE	0	0	0
RY23	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	0	0	0	KL9A2	2784381M	0.60MM TAPED JUMP.WIRE	0	0	0
RY24	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	KNJ1	2784381M	0.60MM TAPED JUMP.WIRE	0	0	0
RY25	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	KNJ2	2784381M	0.60MM TAPED JUMP.WIRE	0	0	0
RY26	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0						
RY27	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0			**PROTECTORS, FUSES**			
RY28	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	F9A2 ⚠	FN00475	FUSE 51MS 063 L-U 6.3A	0	0	0
RY29	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	NF9A2 ⚠	2721351	FUSE HOLDER	0	0	0
RY31	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0						
RY33	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0						

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
		COILS			
L9A1 ⚠	BZ06251	LINE FILTER TF2722H-A152Y8R0-0	0	0	0
LNJ1	BH00693R	COIL 47UH	0	0	0
		TRANSISTORS			
QNJ1	CF02981R	2SC5343YT_PF	0	0	0
QNJ2	CF02981R	2SC5343YT_PF	0	0	0
		RESISTORS			
R9A1 ⚠	AT03661M	RES.MTL GRAZD FLM 1/2W 470K	0	0	0
RNC1	0700054M	RES.-CARBON FLM 1/16W 10K-JB	0	0	0
RNC2	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0	0	0
RNC3	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB	0	0	0
RNC4	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	0	0	0
RNC5	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0	0	0
RNJ1	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	0	0	0
RNJ2	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	0	0	0
RNJ3	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0	0	0
RNJ4	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0	0	0
RNJ6	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0	0	0
RNJ7	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0	0	0
RNJ9	0700064M	RES.-CARBON FLM 1/16W 56K-JB	0	0	0
RNK1	0700064M	RES.-CARBON FLM 1/16W 56K-JB	0	0	0
RNK2	0100123M	RES.-CARBON FLM 1/8W 270K-JB	0	0	0
RNK3	0100123M	RES.-CARBON FLM 1/8W 270K-JB	0	0	0
		SWITCHES			
S9A0 ⚠	FG00251	POWER SW SPW02N02SY17-2-1(U1D1	0	0	0
SNC1	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
SNC2	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
SNC3	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
SNC4	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
SNC5	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
SNC6	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
SNC7	FE00551R	TACT SWITCH SKHVBDD010	0	0	0
		CONNECTORS, JACKS			
EP01	EF22542	FASTON CONNECTOR L=110MM LOCK	0	0	0
J9A1 ⚠	2676371	PLUG-AC INLET SK-1019	0	0	0
JNJ1	EQ00872	PLUG LPR8029-04**F	0	0	0
JNJ2	EQ00871	PLUG LPR8029-05**F	0	0	0
PCM2	2675284	PIN POST (PH 5P)	0	0	0
PFS	2959063	CONNECTOR POST PIN 13P	0	0	0
PPU1	ED02812	6P VH CONNECTOR PLUG #2,4,5 NC	0	0	0
		MISCELLANEOUS			
#01	NA56414	AC INLET MTL AVC5	0	0	0
#02	MJ03651	SCRW T3E_3*12BD+SM SWCH16A	0	0	0
#03	NA82611	DW2 INLET MTL	0	0	0
#04	MJ04025	SCRW M3S_3*12PN+LSK	0	0	0
#05	MD09981	DW2 INLET WASHER	0	0	0
#06	ML02721	MINI CARD SPACER 06	0	0	0
#07	MK01502	LKW_4.3_8.5	0	0	0
		POD PWB			
	JP50341		0		
	JP50342			0	0
		CAPACITORS			
CN30	AA01123R	CCC105K10-B-16CT	0	0	0
CN31	AA01123R	CCC105K10-B-16CT		0	0
CN32	AA01123R	CCC105K10-B-16CT	0	0	0
CN33	AA01123R	CCC105K10-B-16CT		0	0
CNM1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW01	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW02	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW03	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW04	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW05	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CW06	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CW07	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
CW08	AA01116R	CAP.CHIP1608-B-10UF 6.3V M	0	0	0
CW09	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CW10	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CW11	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0

SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
CW12	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW13	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CW14	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0
CW15	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW16	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0
CW17	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW18	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CW19	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0
CW20	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW21	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0
CW22	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW23	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CW24	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	0	0	0
CW25	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CW26	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CW27	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	0	0
CW28	AA01113R	CCC225K06-B-16CT	0	0	0
CW29	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	0	0
CWE1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CWE2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CWE4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	0	0
CWE5	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0
CWE6	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0
CWP1	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CWP2	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	0	0
CWP3	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
CWP4	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	0	0
CWP5	0893118R	CAP 1608CHIP 27PFJCH 50V TAPE	0	0	0
CWP6	0893128R	CAP 1608CHIP 150PFJCH 50V TAPE	0	0	0
CWP7	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CWP8	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	0	0
CWP9	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	0	0
		DIODES			
DN01	CC02061R	LIGHT EMITTING DIODE SML-020ML	0	0	0
DN02	CC01862R	SML011BBTT86	0	0	0
DW01	CC00651R	SML-210MT T86 GREEN	0	0	0
DW02	CC00652R	SML-210DT	0	0	0
		MODULES			
HN01	CE00121R	SBX3050-02	0	0	0
HN02	CZ01261R	IRDA MODULE IC (RPM871-H12)		0	0
HNM1	CZ01241	GP1FM514TZ0F	0	0	0
		INTEGRATED CIRCUITS (IC's)			
IN01	CK38324R	DIGITAL MONOLITHIC IC (SN74LVC	0	0	0
IN02	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC		0	0
IW01	CK53731U	XC3S50-5PQG208C	0	0	0
IW02	CK38378R	DIGITAL MONO IC SI-3012KM	0	0	0
IW03	CK51732R	MM1701CHBE	0	0	0
IW04	CK37212R	MONO IC TK11125CSCL	0	0	0
IWE1	CK53741R	TC7MBL3245AFK	0	0	0
IWE2	CK52581R	ANALOG MONOLITHIC IC(MAX4790E	0	0	0
IWP1	CK50071R	TPS62040DGQR	0	0	0
IWP2	CK37216R	MONO IC TK11133CSCL	0	0	0
		COILS			
LN30	BA00892R	LBC2518 CHIP COIL 47UH	0	0	0
LN31	BA00892R	LBC2518 CHIP COIL 47UH		0	0
LWP1	BA02252R	7E06NG TYPE POWER INDUCTOR 6.8	0	0	0
		TRANSISTORS			
QW01	CA02171R	TRS.CHIP 2SC4082T106P	0	0	0
QWE1	CA02091R	SRC1204EF_PF	0	0	0
		RESISTORS			
RN01	0790035R	RES.CHIP 1/16W 680 OHM	0	0	0
RN02	0790039R	RES.CHIP 1/16W 1.5K OHM	0	0	0
RN03	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0		
RN04	0790039R	RES.CHIP 1/16W 1.5K OHM	0	0	0
RN15	0790035R	RES.CHIP 1/16W 680 OHM	0	0	0
RN31	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RN33	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RN34	0790024R	RES.CHIP 1/16W 100 OHM		0	0
RNM1	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don’t degrade the safety of the receiver through improper servicing.

SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99	SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
RW01	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RW95	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW02	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RW96	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW03	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWE4	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW04	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWE5	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW05	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWE6	AQ00519R	CHIP RESISTOR 47OHM	0	0	0
RW06	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	RWE7	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RW07	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	RWE8	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RW08	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWE9	0790038R	RES.CHIP 1/16W 1.2K OHM	0	0	0
RW09	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWF1	0790061R	RES.CHIP 1/16W 56K OHM	0	0	0
RW10	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWF2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0
RW11	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWF3	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW12	0790017R	RES.CHIP 1/16W 33 OHM	0	0	0	RWF4	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW13	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	RWF5	AQ00519R	CHIP RESISTOR 47OHM	0	0	0
RW14	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	RWF6	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW15	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	RWF7	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0
RW16	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	RWF8	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0
RW17	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	RWP1	AQ00267R	RES.CHIP 1/16W 560K OHM TAPE	0	0	0
RW18	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	RWP2	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0	0	0
RW19	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0	RWP3	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RW20	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0	RWP4	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0
RW21	0790046R	RES.CHIP 1/16W 4.7K OHM	0	0	0	RWP5	0790024R	RES.CHIP 1/16W 100 OHM	0	0	0
RW22	AQ00524R	CHIP RESISTOR 100OHM	0	0	0						
RW23	0790031R	RES.CHIP 1/16W 330 OHM	0	0	0			**CRYSTALS, FILTERS**			
RW25	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	XWP1	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0	0	0
RW26	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0						
RW28	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0			**CONNECTORS, JACKS**			
RW29	AQ00524R	CHIP RESISTOR 100OHM	0	0	0	JSW	EA02231R	8P 0.45 PITCH SOCKET 3234		0	0
RW30	AQ00546R	CHIP RESISTOR 4.7KOHM	0	0	0	JW01	EA03121U	PCMCIA HEADER	0	0	0
RW31	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	JWE1	EY01772R	SD MEMORY CARD 500998-0900	0	0	0
RW32	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	PCM1	EA02331R	11P 1.0MM PITCH CONNE. 501331-	0	0	0
RW33	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	PW01	EA03014R	80P 0.5MM PITCH FPC CONNECTOR	0	0	0
RW34	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	PWS	ED01055	CONNECTOR	0	0	0
RW35	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0						
RW36	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0			**MISCELLANEOUS**			
RW38	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	#01	NA75382	DW1 TERMINAL SUP MTL.	0	0	0
RW39	0790042R	RES.CHIP 1/16W 2.2K OHM	0	0	0	NW01~2	MJ03878	SCRW M3M_2*10PN+SM Unknown	0	0	0
RW40	0790042R	RES.CHIP 1/16W 2.2K OHM	0	0	0						
RW43	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0			**FINAL ASS'Y**			
RW44	AQ00519R	CHIP RESISTOR 47OHM	0	0	0						
RW45	AQ00519R	CHIP RESISTOR 47OHM	0	0	0			**SPEAKERS**			
RW46	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	SPBL	GM01721	SPEAKER UNIT	0	0	0
RW47	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	SPBR	GM01722	SPEAKER UNIT	0	0	0
RW48	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	SPL	GM01711	SPEAKER UNIT	0	0	0
RW49	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	SPR	GM01712	SPEAKER UNIT	0	0	0
RW50	AQ00519R	CHIP RESISTOR 47OHM	0	0	0						
RW51	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0			**MISCELLANEOUS**			
RW52	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	A11	JP50321	DW2-U SUBDIGITAL PWB ASS'Y	0		
RW53	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A12	JP50322	DW2-U SUBDIGITAL PWB ASS'Y		0	
RW54	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A13	JP50323	DW2-U SUBDIGITAL PWB ASS'Y			0
RW55	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A21	JP50331	DW2-U FILTER PWB ASS'Y	0	0	0
RW56	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A31	JP50341	DW2-U POD PWB ASS'Y	0		
RW57	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A32	JP50342	DW2-U POD PWB ASS'Y		0	0
RW59	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A01	DD00822K	FPF42C128135UA-** (PDP PANEL)	0	0	0
RW60	AQ00519R	CHIP RESISTOR 47OHM	0	0	0	A02	TS07357	FPF33R-LGC85H (LOGIC BOARD)	0	0	0
RW62	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	A05	TS06023	FPF28R-SCWM3 (LOGIC SCREWS)	0	0	0
RW63	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	A21	JP50761	PSA DW2-A MAIN-DIGITAL (S/T)	0		
RW64	0790064R	RES.CHIP 1/16W 100K OHM	0	0	0	A22	JP50762	PSA DW2-B MAIN-DIGITAL (X)			0
RW72	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	A23	JP50763	PSA DW2-C MAIN-DIGITAL (T)		0	
RW73	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	U1	HA01731	POW-PDP-MPF-7428 (POWER UNIT)	0	0	0
RW79	AQ00243R	RES.CHIP 1/16W 68K OHM TAPE	0	0	0	FAN	GS00702	3110KL-04W-B10	0	0	0
RW80	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0						
RW81	AQ00231R	RES.CHIP 1/16W 24K OHM TAPE	0	0	0			**CONNECTORS**			
RW82	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0	0	0	E403	EK01931	WIRE (PROCESSED) JF04R0R021970	0	0	0
RW83	AQ00258R	RES.CHIP 1/16W 270K OHM TAPE	0	0	0	E42H	EF26011C	ASS'Y CONNE.(SMP/PH/PA/ZH/SH/5	0	0	0
RW84	0790051R	RES.CHIP 1/16W 10K OHM	0	0	0	EA01	EK01901	80P FFC CABLE L=***MM UL20861	0	0	0
RW85	AZ01031R	THERMISTOR NANOSMDC050F13.2	0	0	0	ECN1	EF25781	41J LVDS CABLE L=500 (FI-W DF1	0	0	0
RW86	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	ECN1A	GX00666	CLAMP FERRITE CORE K5C RC 16X2	0	0	0
RW87	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	ECN23	EF21623	10P VH CONNECTOR L=261MM #2,7NC	0	0	0
RW88	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	0	0	ECN6	2908842S	9J PH CONNECTOR 270MM	0	0	0
RW89	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	EPM1	EF25971	8P EH-ZH CONNE. L=115MM	0	0	0
RW90	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	EPM2	EF25981	15P EH-DF3 CONNE. L=345MM	0	0	0
RW91	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	EPU1	EF25042	6J VH-VH CONNE. L=450MM #2,4,5	0	0	0
RW92	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	EPU1A	GX00666	CLAMP FERRITE CORE K5C RC 16X2	0	0	0
RW93	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	ERF	EY02262	PLUG L NIC8014N	0	0	0
RW94	0790019R	RES.CHIP 1/16W 47 OHM	0	0	0	EUSB	EW08516	CORD USB L=910E		0	0

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SYMBOL	PART #	DESCRIPTION	42HDS69	42HDT79	42HDX99
		ACCESSORIES			
E01	EV01841	POWER CORD 125V10A UL/CSA	0	0	0
E201	EY01641	PJX-IR BLASTER DP2X		0	0
E202	EY01641	PJX-IR BLASTER DP2X		0	0
E203	FQ00021	DRY BATTERY(R6P-AA)	0	0	0
E204	FR00061	DRY BATTERY R03(AB) E T			0
E301	2169513	COIL LX-ZCAT2032		0	0
ESWVL	EW08432	8P PLUG CODE L=165 MM		0	0
N01	QR66761	HDS69 INSTRUCTION BOOK	0		
N01	QR66771	HDT79 INSTRUCTION BOOK		0	0
N02	QR66791	HDS69 EASY GUIDE	0		
N02	QR66801	HDT79 EASY GUIDE		0	0
N202	QT47722	DIRECTOR'S WARRANTY CARD			0
N203	QT44791	PLASMA WARRANTY CARD CANADA	0	0	0
N204	QT47721	NATIONAL WARRANTY CARD	0	0	
U01	HL02069	REMOTE CONTROL UNIT CLU-3861WL		0	0
U01	HL02073	REMOTE CONTROL UNIT-CLU-4352UG2	0		
U02	HL01864	RCT- CLU123S			0

QUICK REFERENCE PARTS LIST
IC'S & UNITS

No.	Symbol	P#	Description	Function	PWB ASSY	Remarks
1	A21	JP50761	PSA DW2-A MAIN-DIGITAL (42HDS69)	MAIN DIGITAL ASS'Y	MAIN DIGITAL	
2	A22	JP50762	PSA DW2-B MAIN-DIGITAL (42HDX99)	MAIN DIGITAL ASS'Y	MAIN DIGITAL	
3	A23	JP50763	PSA DW2-C MAIN-DIGITAL (42HDT79)	MAIN DIGITAL ASS'Y	MAIN DIGITAL	
4	DN01	CC02061R	LIGHT EMITTING DIODE SML-020ML	RED/ORANGE LED	LED	
5	DN02	CC01862R	SML011BBTT86	BLUE LED	LED	
6	HN01	CE00121R	SBX3050-02	IR RECEIVER	LED	
7	HN02	CZ01261R	IRDA MODULE IC (RPM871-H12)	IR RECEIVER	LED	ONLY HDT/HDX MODELS
8	HNM1	CZ01241	GP1FM514TZ0F	IR RECEIVER	LED	
9	L9A1	BZ06251	LINE FILTER TF2722H-A152Y8R0-0	AC NOISE FILTER	FILTER	
10	F9A2	FN00475	FUSE 51MS 063 L-U 6.3A	FUSE	FILTER	
11	I001	CK53531U	R2S11008FP	AUDIO/VIDEO SELECTOR	SUBDIGITAL	
12	I004	CK51331R	TK11100CS	ADJUSTABLE POSITIVE LOW DROPOUT REGULATOR IC	SUBDIGITAL	
13	I005	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
14	IH02	CK53891R	TMDS SW IC CXB1441R	CABLE EQUALIZER SW	FRONT HDMI	
15	IH03	CK37216R	MONO IC TK11133CSCL	3.3 V VOLTAGE REGULATOR W ON/OFF SW	FRONT HDMI	
16	IH04	CK38329R	DIGITAL MONOLITHIC IC (SN74LVC1G126DCK)	SINGLE BUS BUFFER GATE WITH 3-STATE OUTPUTS	FRONT HDMI	
17	IH05	CK38329R	DIGITAL MONOLITHIC IC (SN74LVC1G126DCK)	SINGLE BUS BUFFER GATE WITH 3-STATE OUTPUTS	FRONT HDMI	
18	IL01	CK50961R	SN74CB3T3306DCUR	DUAL FET BUS SWITCH	SUBDIGITAL	
19	IM01	CK51632R	9DR32DW8-1046	IR BLASTER	SUBDIGITAL	ONLY HDT/HDX MODELS
20	IM02	CK51091R	SN74LVC1G3157DCKR	SINGLE-POLE, DOUBLE-THROW ANALOG SW	SUBDIGITAL	ONLY HDT/HDX MODELS
21	IM03	CK38328R	IC SN74LVC1G125DCKR	SINGLE BUS BUFFER GATE WITH 3-STATE OUTPUTS	SUBDIGITAL	ONLY HDX MODELS
22	IM04	CK38328R	IC SN74LVC1G125DCKR	SINGLE BUS BUFFER GATE WITH 3-STATE OUTPUTS	SUBDIGITAL	ONLY HDT/HDX MODELS
23	IM05	2015203R	HD74HC00TELLE	QUAD 2-INPUT NAND GATES	SUBDIGITAL	ONLY HDT/HDX MODELS
24	IM06	CK54692R	GENERAL LOGIC IV(TC74AC163FT)	SYNCHRONOUS PRESETTABLE 4 BIT BINARY COUNTER	SUBDIGITAL	ONLY HDT/HDX MODELS
25	IM07	CK51091R	SN74LVC1G3157DCKR	SINGLE-POLE, DOUBLE-THROW ANALOG SW	SUBDIGITAL	ONLY HDT/HDX MODELS
26	IM08	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
27	IP03	CK52481R	TK73400TCB-G	6.2 VOLTAGE REGULATOR FOR TV / VTR USE	SUBDIGITAL	
28	IP05	CK50461R	ANALOG MONOLITHIC IC(BA6287F)	REVERSIBLE MOTOR DRIVER	SUBDIGITAL	ONLY HDT/HDX MODELS
29	IPT1	CK54161R	ANALOG MONOLITHIC IC(MP2361DK	DC-DC CONVERTER	SUBDIGITAL	
30	IT02	CK54051U	THEATER314	QAM/VSB DEMODULATOR	SUBDIGITAL	
31	IT03	CK51091R	SN74LVC1G3157DCKR	SINGLE-POLE, DOUBLE-THROW ANALOG SW	SUBDIGITAL	
32	IT04	CK50961R	SN74CB3T3306DCUR	DUAL FET BUS SWITCH	SUBDIGITAL	
33	IT05	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
34	IT06	CK37605R	IC TK11250CM	5 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
35	IT07	CK37605R	IC TK11250CM	5 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
36	IT09	CK51151R	UPC3221GV	5 V AGC AMPLIFIER	SUBDIGITAL	
37	IT10	CK51141R	UPC3220GR	CATV OUT-OF-BAND TUNER	SUBDIGITAL	
38	IT11	CK37211R	MONO IC TK11118CSCL	1.8 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
39	IT12	CK37216R	MONO IC TK11133CSCL	3.3 V VOLTAGE REGULATOR W ON/OFF SW	SUBDIGITAL	
40	IY01	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC1G17DCK)	SINGLE SCHMITT TRIGGER BUFFER	SUBDIGITAL	ONLY HDT/HDX MODELS
41	IY02	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC1G17DCK)	SINGLE SCHMITT TRIGGER BUFFER	SUBDIGITAL	ONLY HDT/HDX MODELS
42	IY03	CK50027R	DIGITAL MONOLITHIC IC (MAX202IPW)	DUAL RS-232 LINE DRIVER/REC W/+-15KV ESD PROTEC	SUBDIGITAL	
43	IN01	CK38324R	DIGITAL MONOLITHIC IC (SN74LVC1G14DCK)	SINGLE SCHMITT-TRIGGER INVERTER	LED	
44	IN02	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC1G17DCK)	SINGLE SCHMITT TRIGGER BUFFER	LED	ONLY HDT/HDX MODELS
45	IW01	CK53731U	XC3S50-5PQG208C	OBERON IC (POD IC)	POD	
46	IW02	CK38378R	DIGITAL MONO IC SI-3012KM	1 A, LOW DROPOUT, 1.28~15 V REGULATOR	POD	
47	IW03	CK51732R	MM1701CHBE	1.2 V VOLTAGE REGULATOR	POD	
48	IW04	CK37212R	MONO IC TK11125CSCL	2.5 V VOLTAGE REGULATOR W ON/OFF SW	POD	
49	IWE1	CK53741R	TC7MBL3245AFK	OCTAL BUS SWITCH	POD	
50	IWE2	CK52581R	ANALOG MONOLITHIC IC(MAX4790EUS)	CURRENT LIMIT SWITCH	POD	
51	IWP1	CK50071R	TPS62040DGQR	HIGH EFFICIENCY STEP DOWN CONVERTER	POD	
52	IWP2	CK37216R	MONO IC TK11133CSCL	3.3 V VOLTAGE REGULATOR W ON/OFF SW	POD	
53	JWE1	EY01772R	SD MEMORY CARD 500998-0900	MEMORY CARD JACK	POD	
54	U1	HA01731	POW-PDP-MPF-7428	POWER UNIT	POWER	
55	UT01	HC00701	ENGD6305	ANALOG/DIGITAL TUNER	SUBDIGITAL	

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Part Numbers for Boards and Assemblies

PANEL BOARDS 42"

Model	Power Supply	X-SUS PWB	X-BUS PWB	Y-SUS PWB	Logic PWB	A-BUS-L PWB	A-BUS-R PWB
42HDS69	HA01731	FPF33R-XSS0041	FPF33R-XBU0035	FPF33R-YSS0042	FPF33R-LGC0061	FPF33R-ABL0038	FPF33R-ABR0039
42HDT79							
42HDX99							

PANEL BOARDS 55"

Model	Power Supply	X-SUS PWB	X-BUS PWB	Y-SUS PWB	SDR-U PWB	SDR-D PWB	LOGIC PWB
55HDS69	HA01751	FPF31R-XSS0031	FPF31R-XBU0029	FPF31R-YSS0032	FPF31R-SDR0033	FPF31R-SDR0034	FPF31R-LGC0053
55HDT79							
55HDX99							

A-BUS-D1 PWB	A-BUS-D2 PWB	A-BUS-D3 PWB	A-BUS-D4 PWB	A-BUS-U1 PWB	A-BUS-U2 PWB	A-BUS-U3 PWB	A-BUS-U4 PWB
FPF31RABD002811	FPF31RABD002812	FPF31RABD002813	FPF31RABD002814	FPF31RABU002801	FPF31RABU002802	FPF31RABU002803	FPF31RABU002804

CHASSIS BOARDS 42" & 55"

Model	Chassis[1]	Sub-Digital PWB[2]	AC Filter PWB	POD PWB[3]	Main-Digital PWB[4]	(Side) HDMI PWB	Control PWB	(Side) Terminal PWB	LED / IR PWB	OPT PWB
42HDS69	UE26051	JP50321	JP50331	JP50341	JP50761	X480401	X480402	X480403	X480404	(Included with POD PWB)
42HDT79	UE26052	JP50322		JP50342	JP50763					
42HDX99	UE26053	JP50323			JP50762					
55HDS69	UE26054	JP50321	JP50332	JP50341	JP50761					
55HDT79	UE26055	JP50322		JP50342	JP50763					
55HDX99	UE26056	JP50323			JP50762					

NOTES:

1. **Chassis** includes everything EXCEPT the **Main-Digital PWB**.
2. **Sub-Digital PWB** includes the Main Terminal Block.
3. **POD** means Point Of Deployment, which is another term for CableCard.
4. **Main-Digital PWB** is not included with **Chassis**.

CH 1

CH 2

HITACHI